

# KIC 006756202

## Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	$R_{\star}$ ( $R_{\odot}$ )	$T_{\star}$ (K)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
006756202-01	OBS	3547.01	290.778151	393.510966	226208.3	12.033	3444.9	2205.1	0.73	5207	43.73	0.58
006756202-02	OBS	No	264.641847	350.218198	4454.4	15.000	70.0	-1.0	0.73	5207	4.79	0.66
006756202-03	OBS	No	282.511207	331.298712	1846.0	9.096	63.4	12.7	0.73	5207	6.17	0.60

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006756202-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—DEEP_V_SHAPED
006756202-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS
006756202-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS

**Notes:** OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

Ephemeris Match Information For 006756202-01

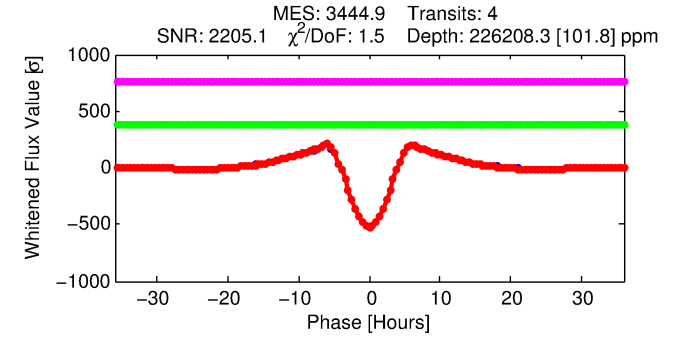
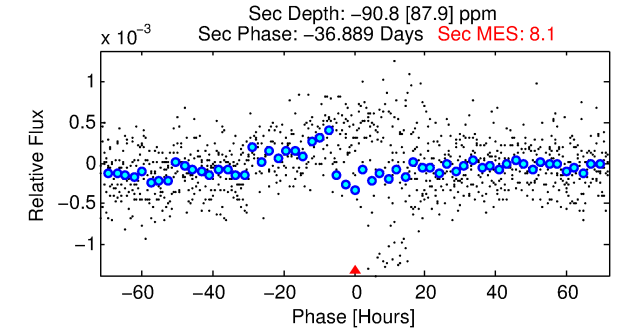
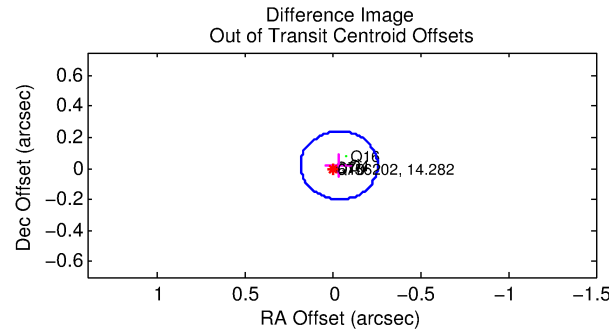
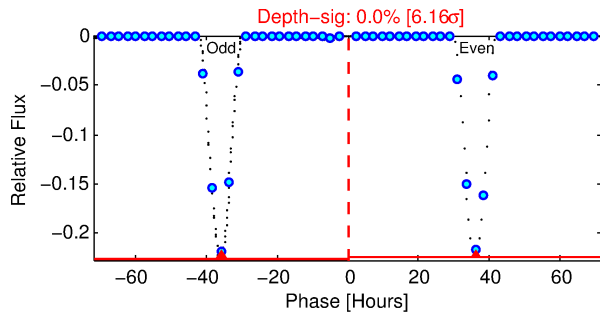
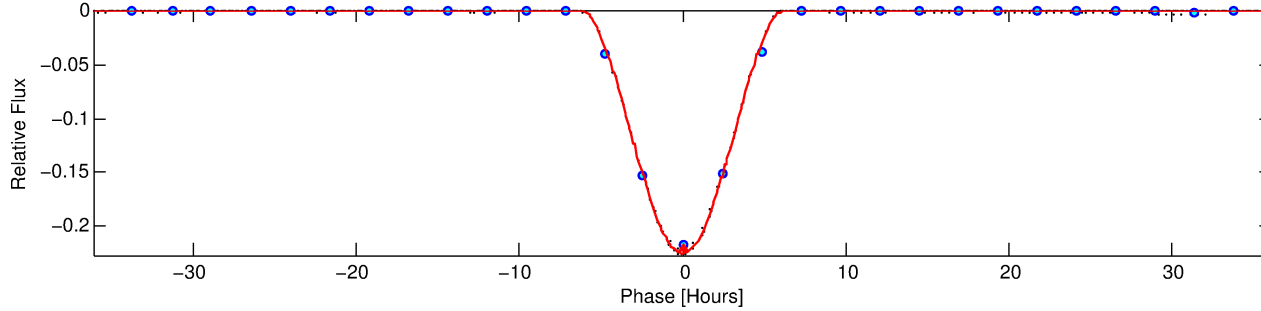
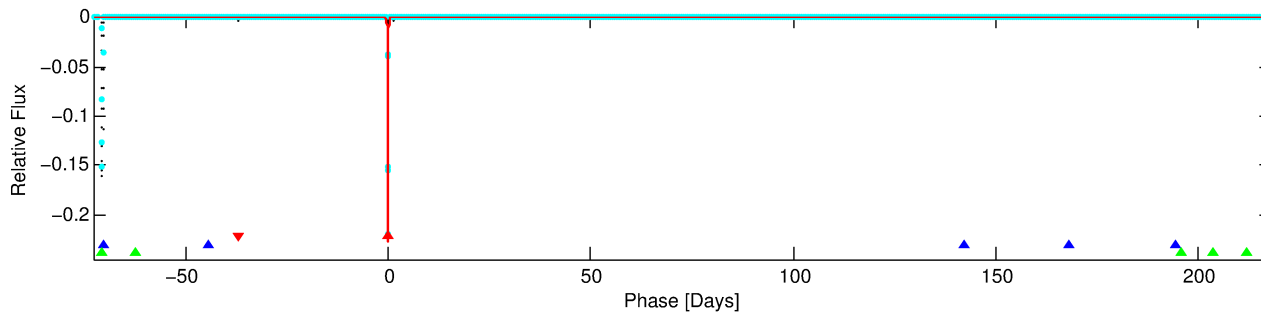
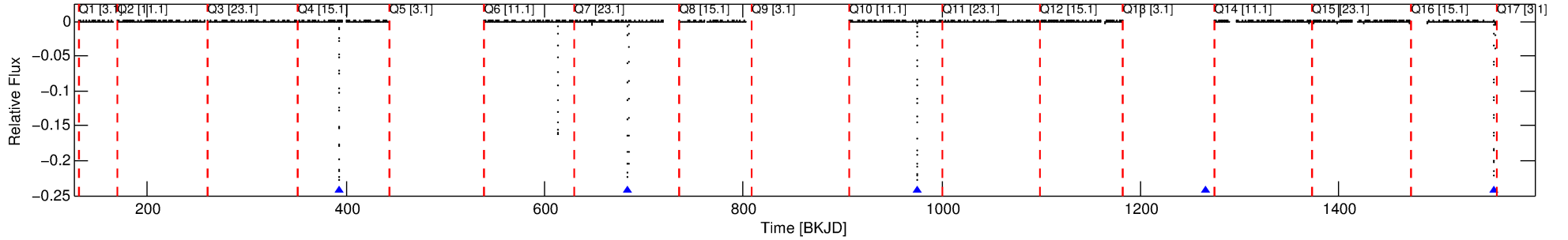
No Significant Match Found

# DV One-Page Summary

KIC: 6756202 Candidate: 1 of 3 Period: 290.778 d

KOI: K03547.01 Corr: 0.999

Kp: 14.28 R\*: 0.73 Rs Teff: 5207.0 K Logg: 4.58 Fe/H: -0.300



## DV Fit Results:

Period = 290.77815 [0.00003] d  
Epoch = 393.5110 [0.0001] BKJD  
Rp/R\* = 0.5460 [0.0305]  
a/R\* = 251.64 [1.59]  
b = 0.73 [0.05]  
Seff = 0.58 [0.11]  
Teq = 222 [10] K  
Rp = 43.73 [6.33] Re  
a = 0.7826 [0.0820] AU  
Ag = N/A  
Teffp = N/A

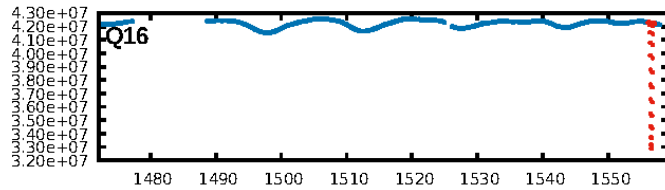
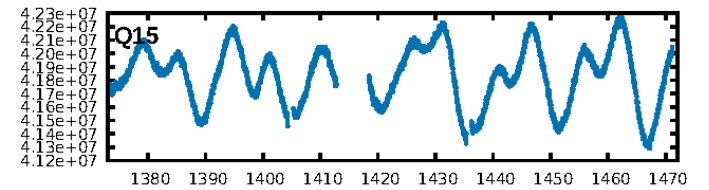
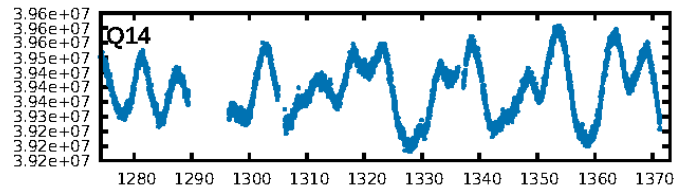
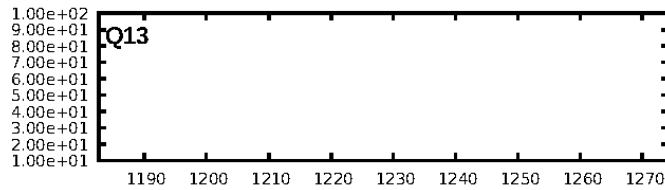
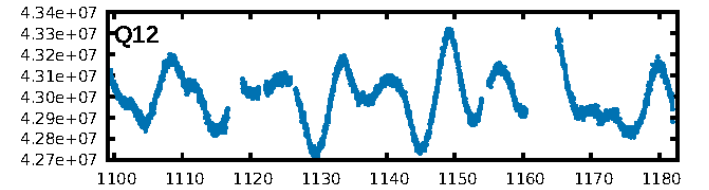
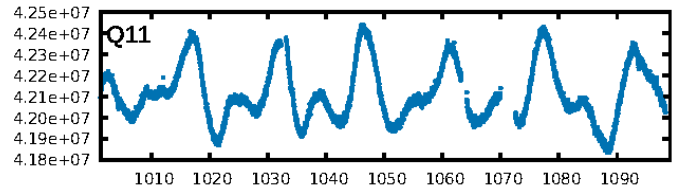
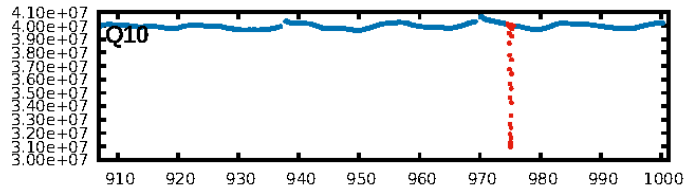
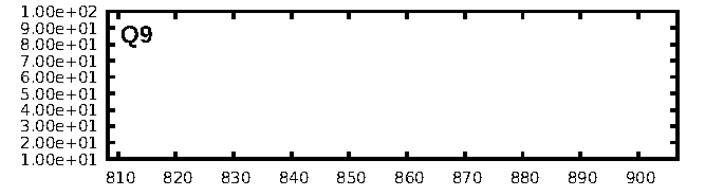
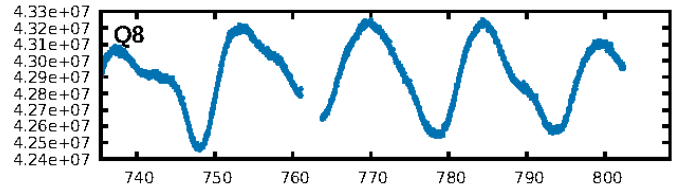
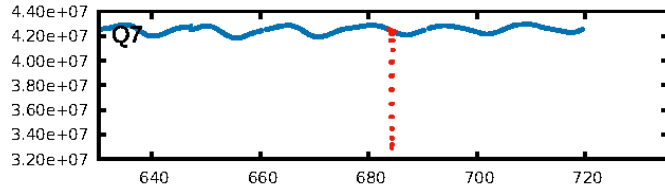
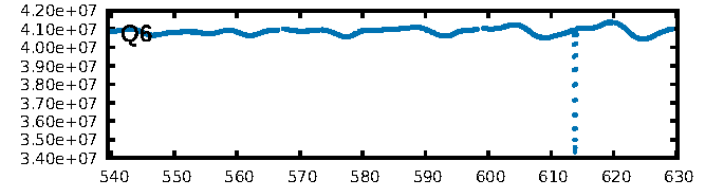
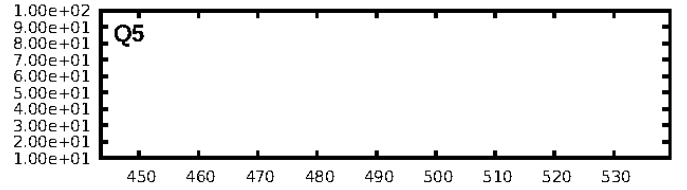
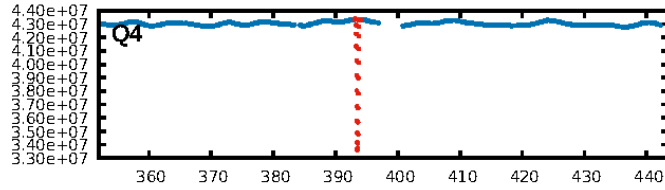
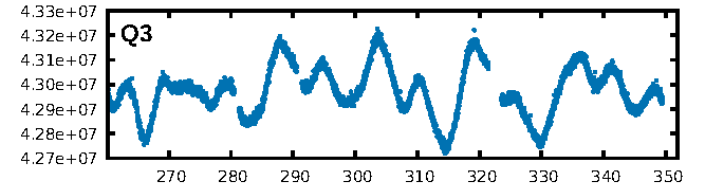
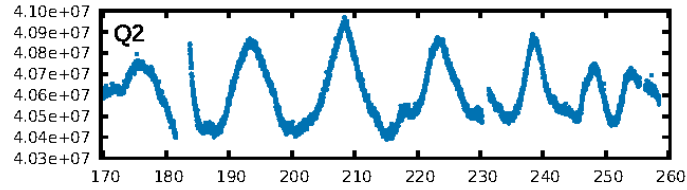
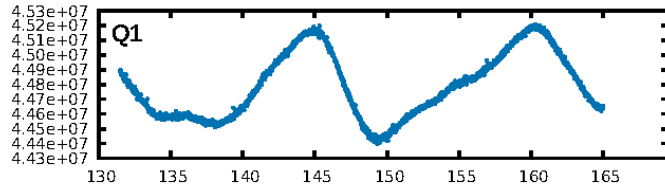
## DV Diagnostic Results:

ShortPeriod-sig: 100.0% [13.15σ]  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: 0.0%  
ModelChiSquareGof-sig: 1.7%  
Bootstrap-pfa: 0.00e+00  
RollingBand-fgt: 1.00 [4/4]  
GhostDiagnostic-chr: 2.057  
Centroid-sig: 0.0%  
Centroid-so: 0.128 arcsec [46.03σ]  
OotOffset-rm: 0.041 arcsec [0.56σ]  
KicOffset-rm: 0.141 arcsec [1.81σ]  
OotOffset-st: 1/1/2/0 [4]  
KicOffset-st: 1/1/2/0 [4]  
DiffImageQuality-fgm: 1.00 [4/4]  
DiffImageOverlap-fno: 1.00 [4/4]

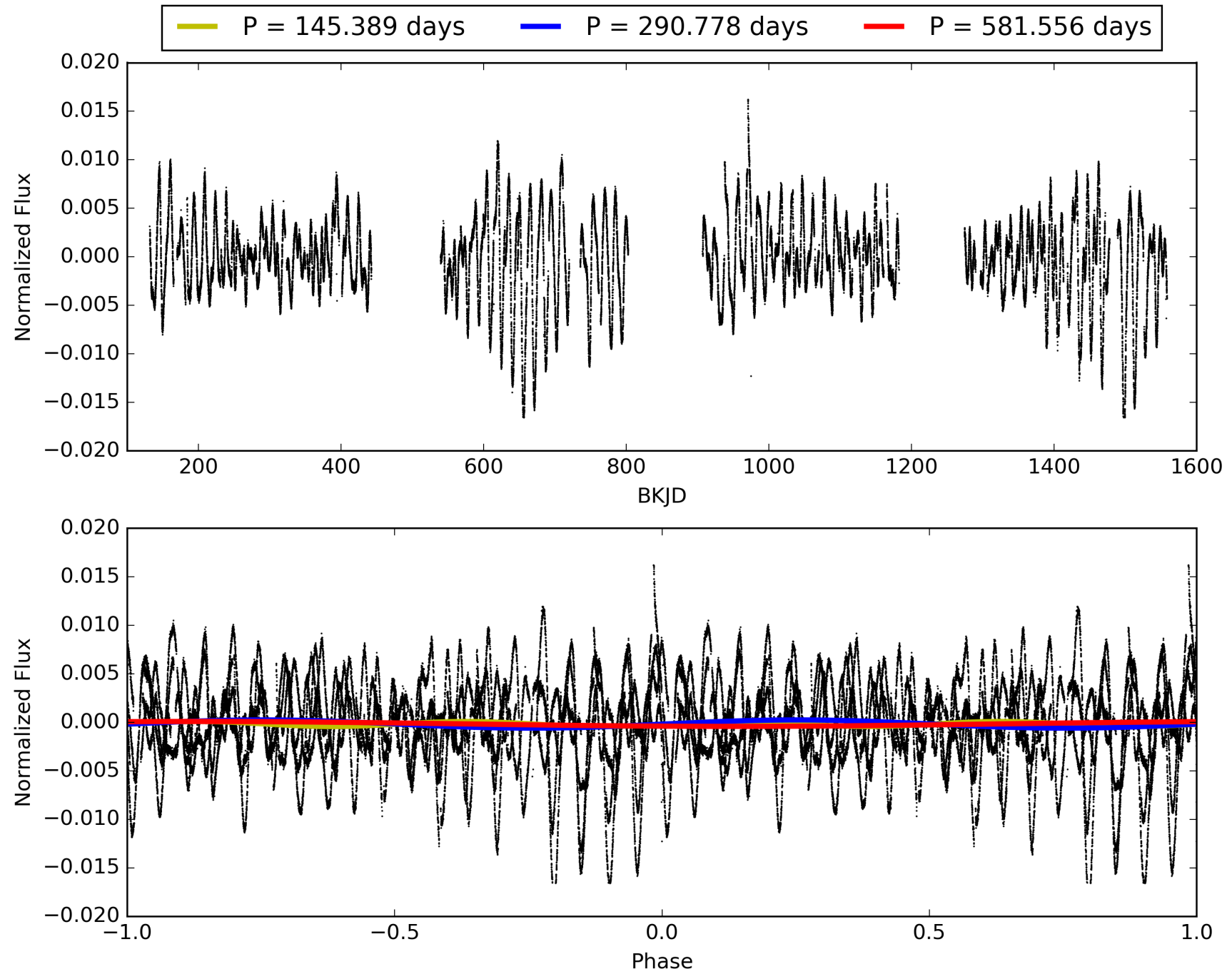
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 12:42:54 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

## TCE 006756202-01, PDC Light Curves

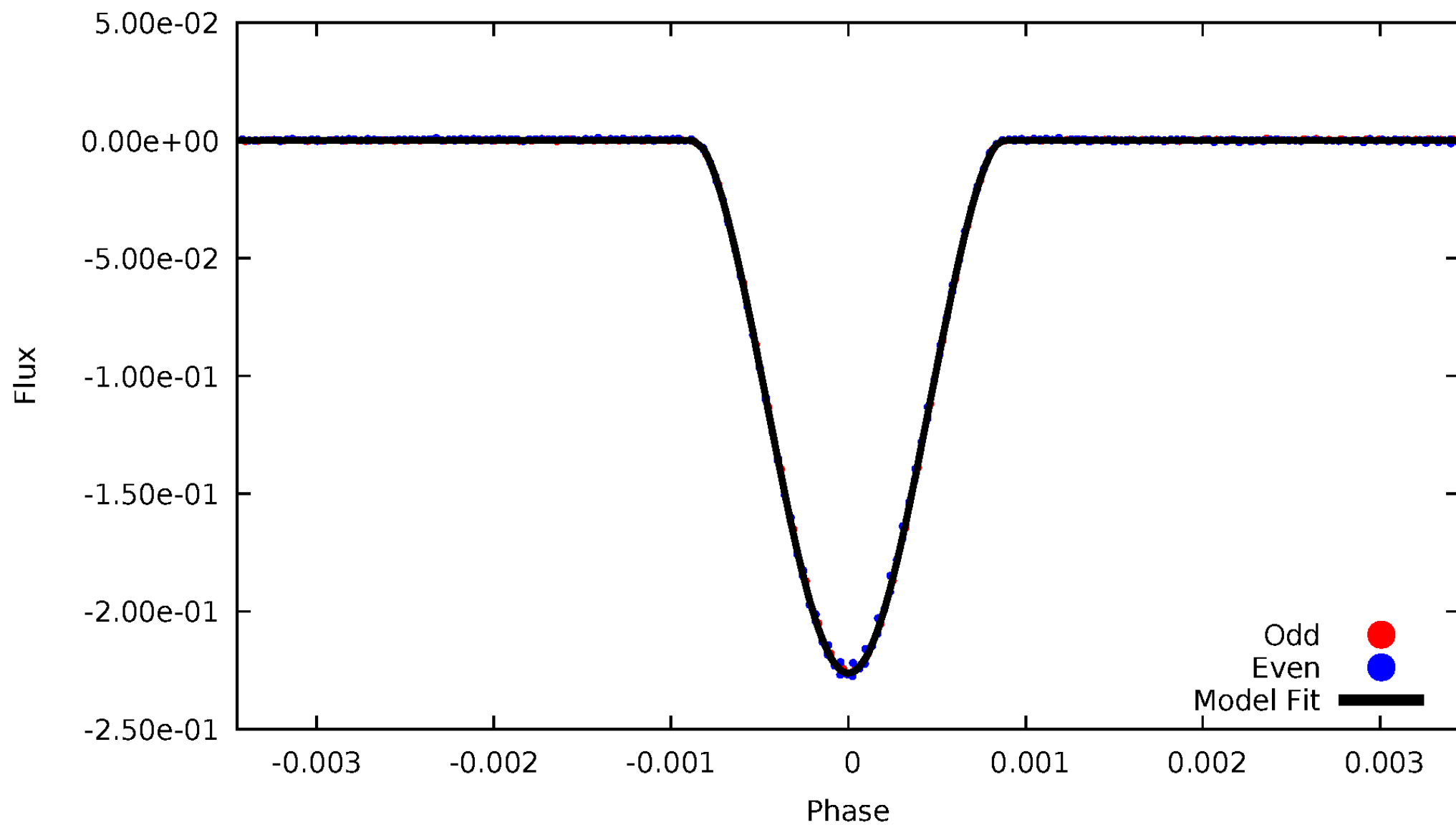


# TCE 006756202-01



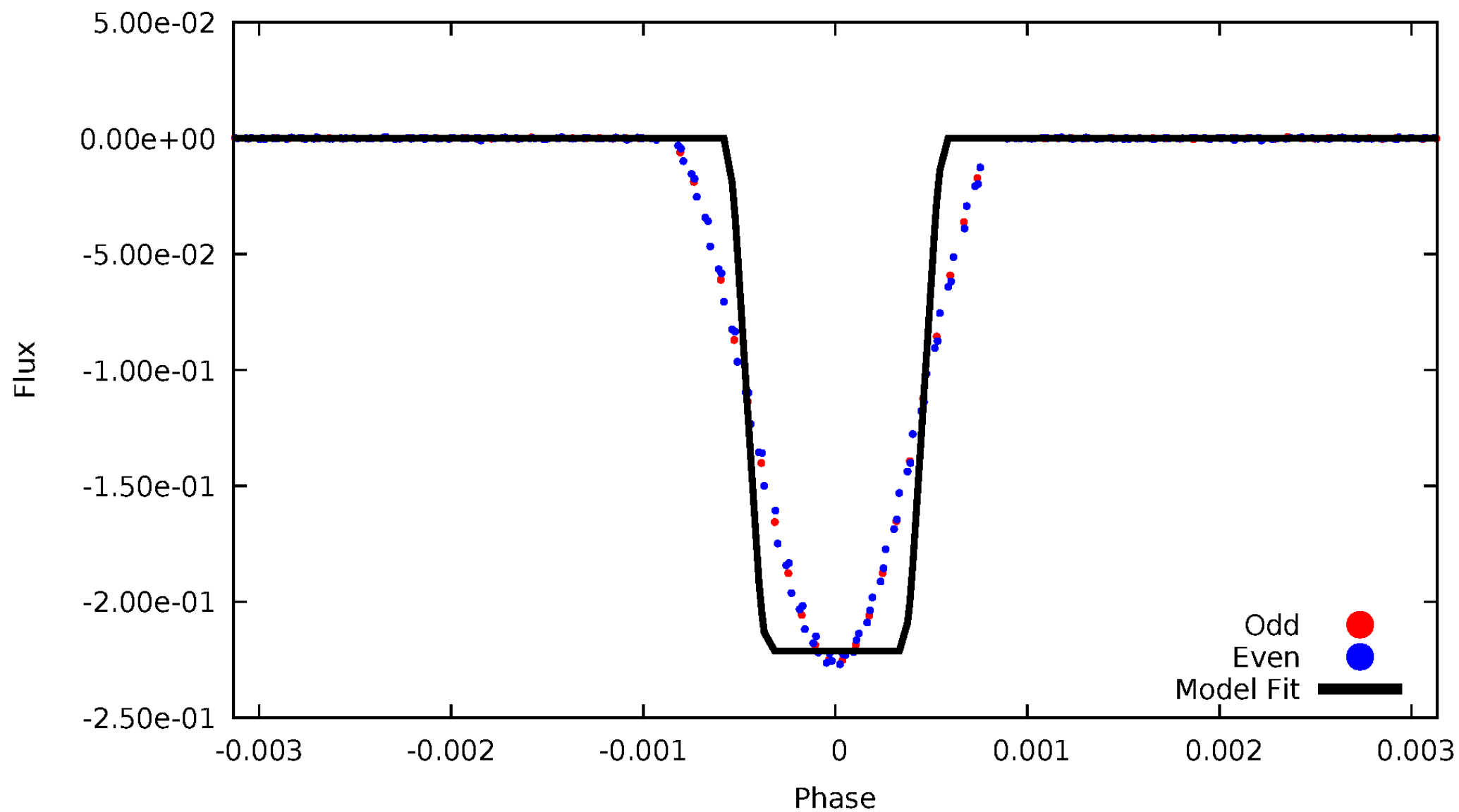
# DV Odd/Even

TCE 006756202-01



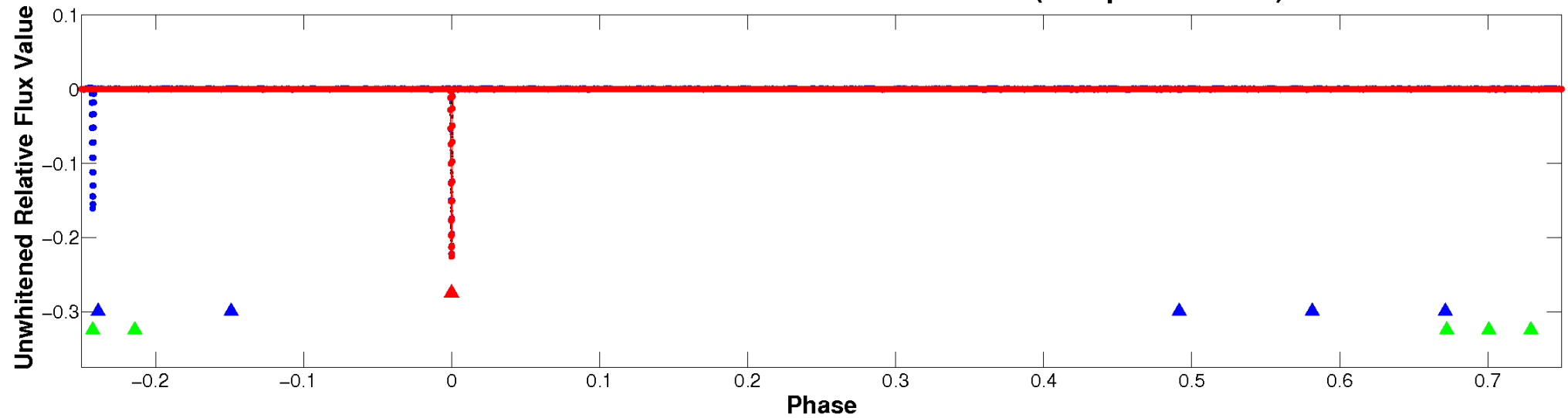
# ALT Odd/Even

TCE 006756202-01

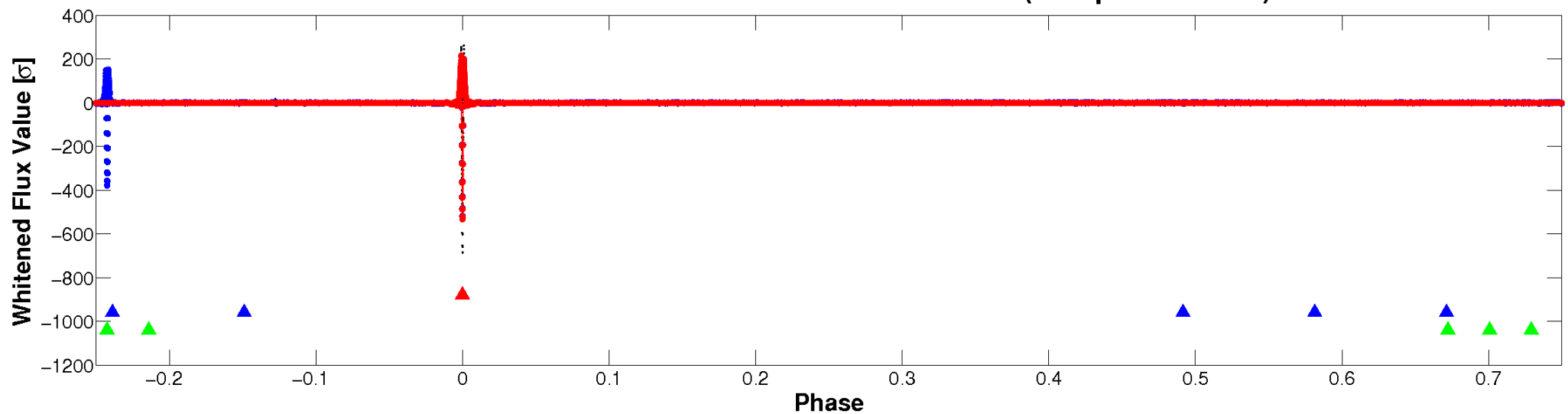


# Non-Whitened Vs. Whitened Light Curve

**Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)**

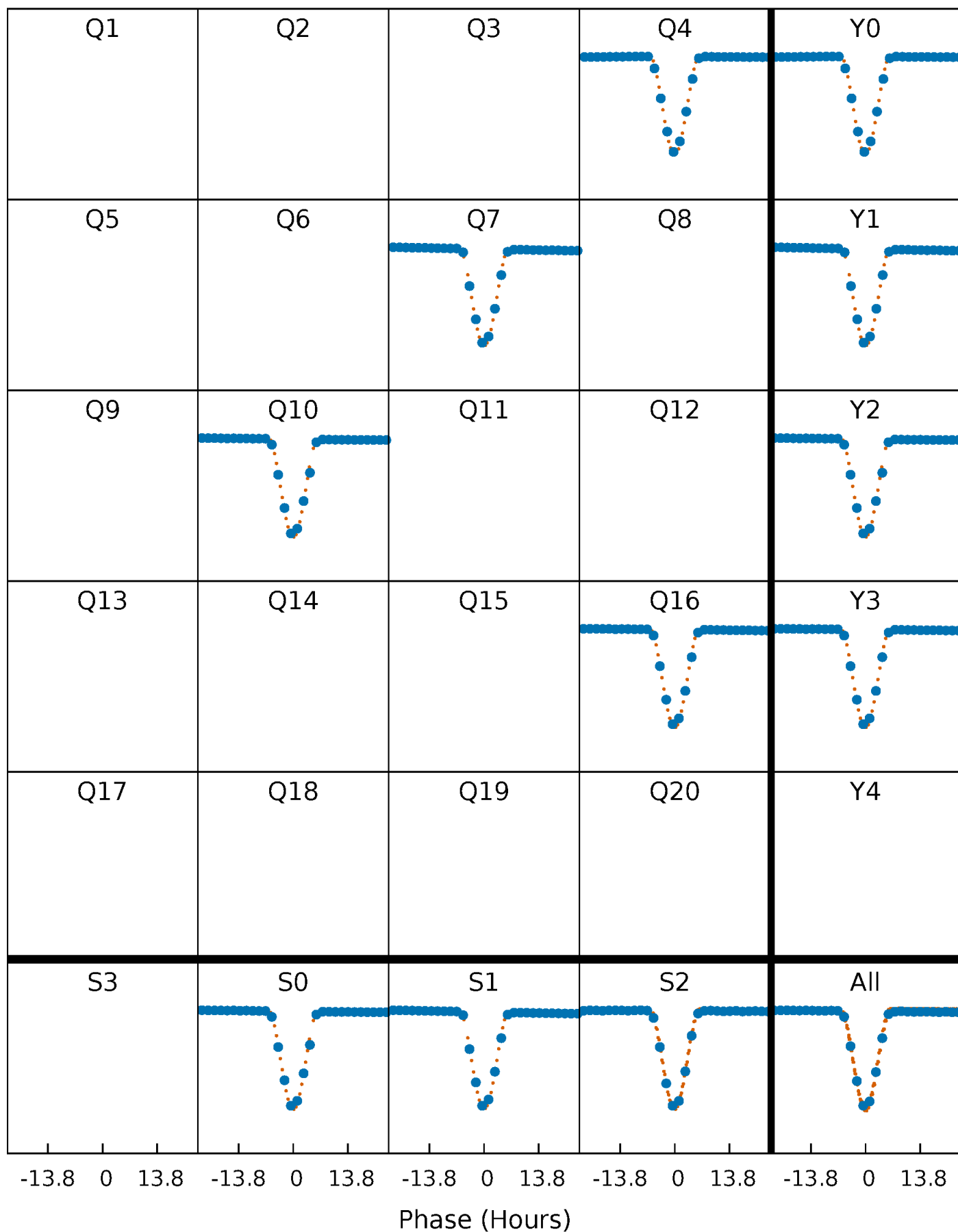


**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



# PDC Quarter-Phased Transit Curves

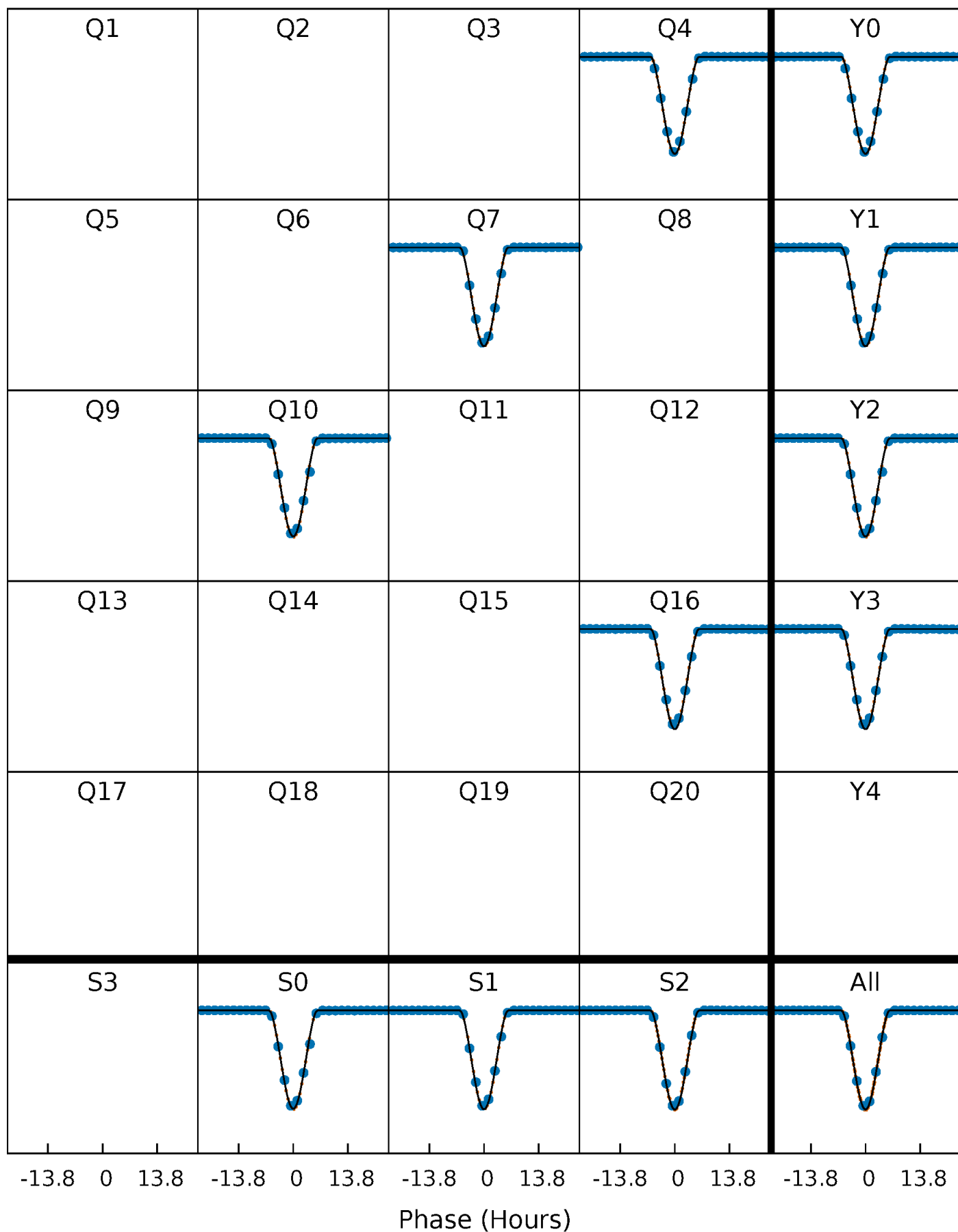
TCE 006756202-01 P=290.778151 Days  $T_0=393.510966$  (BKJD)





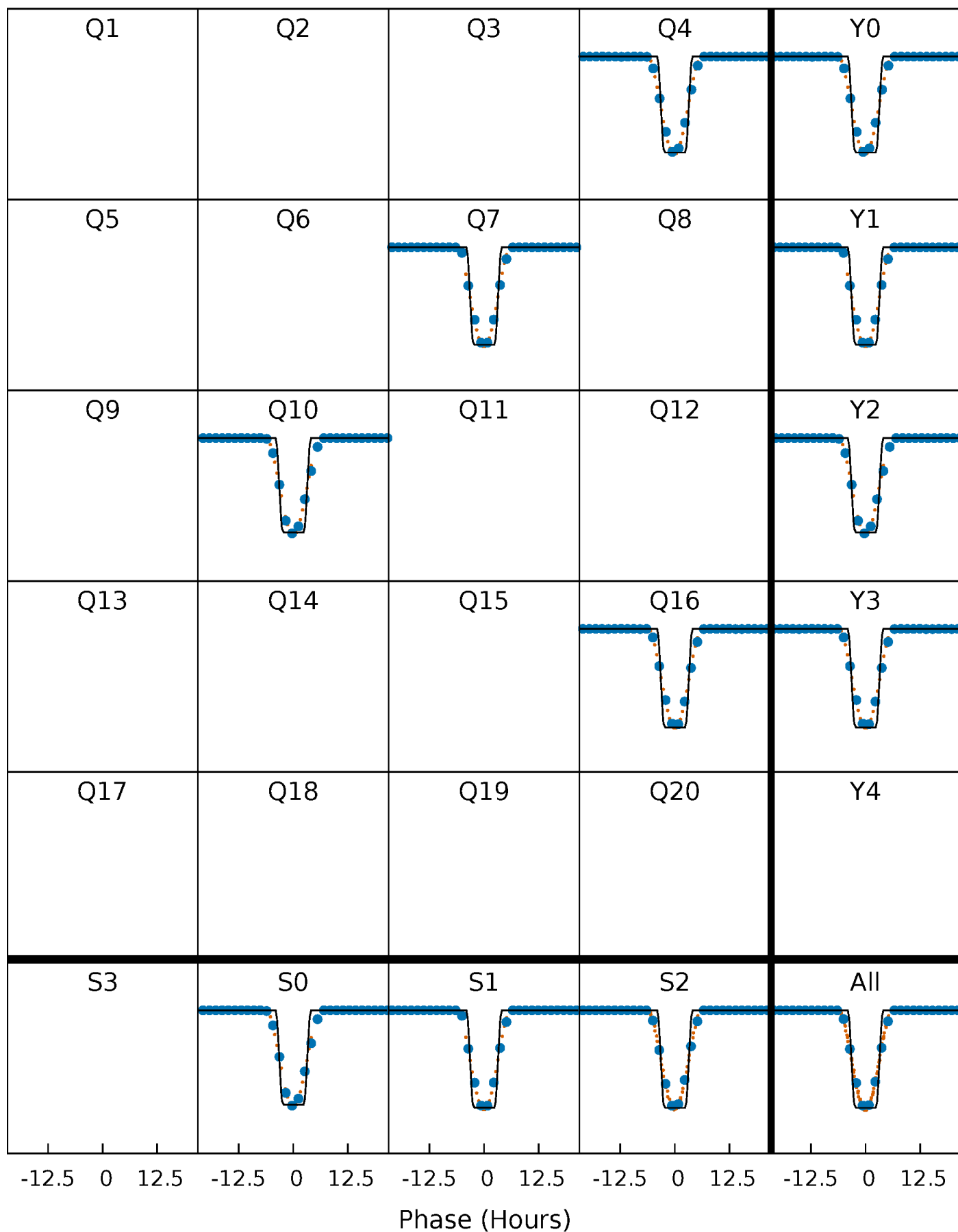
# DV Quarter-Phased Transit Curves

TCE 006756202-01 P=290.778151 Days  $T_0=393.510966$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

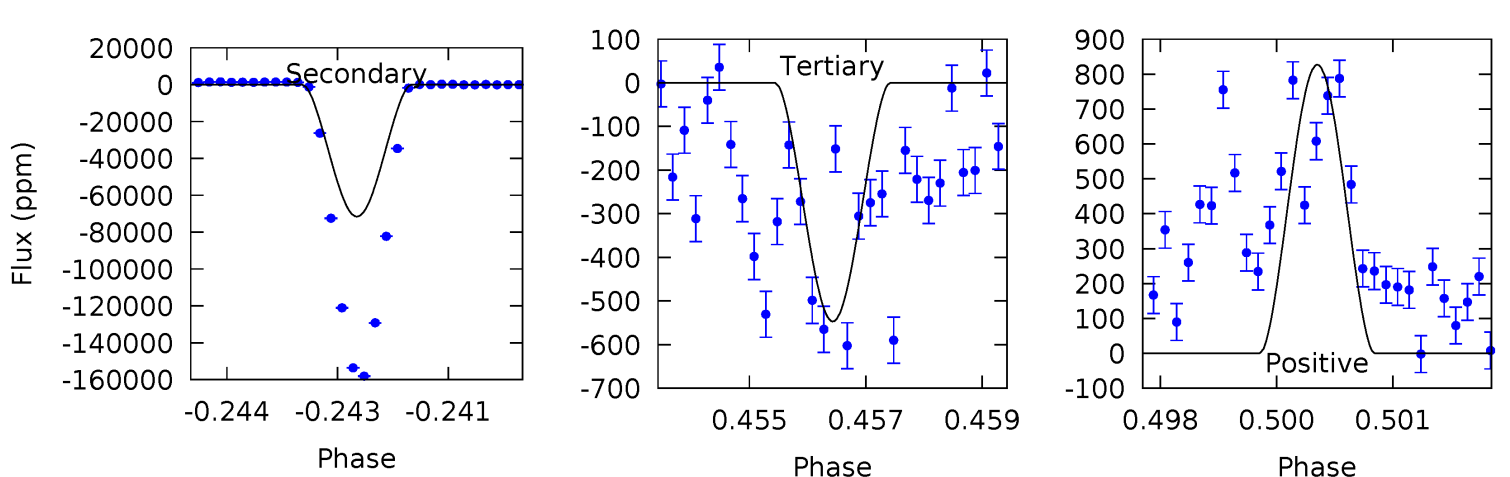
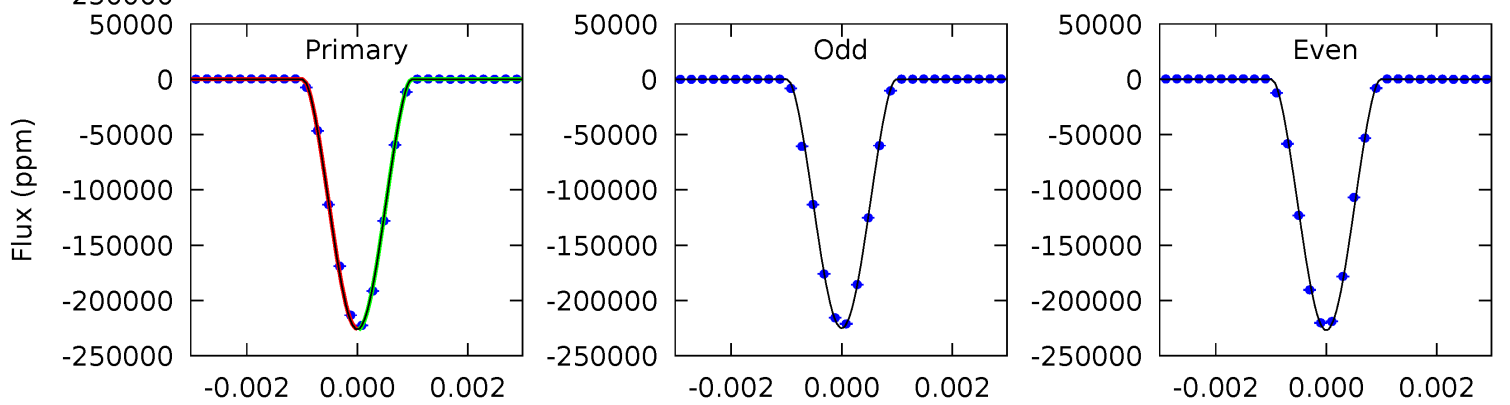
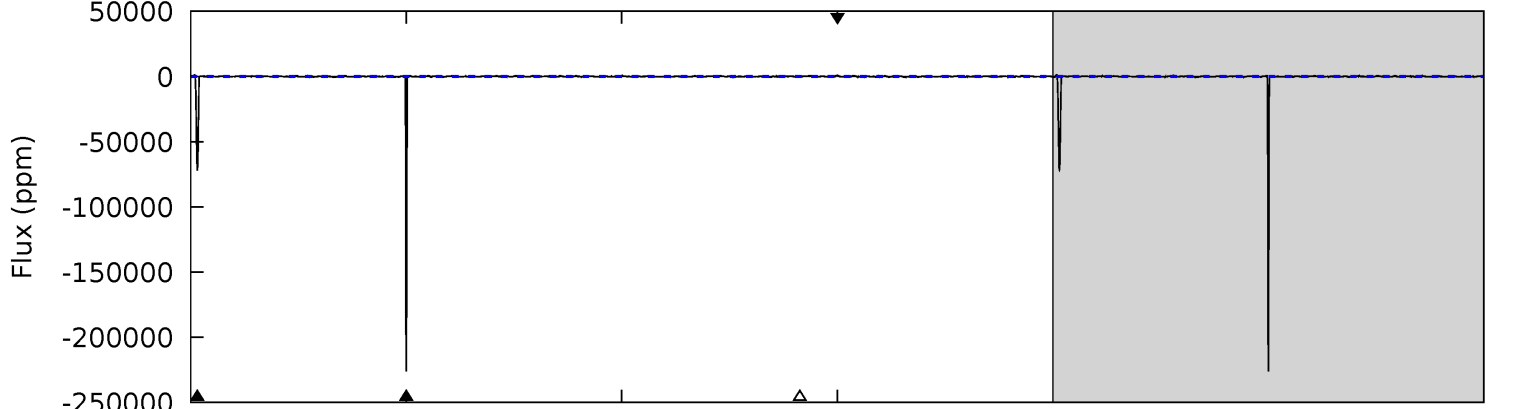
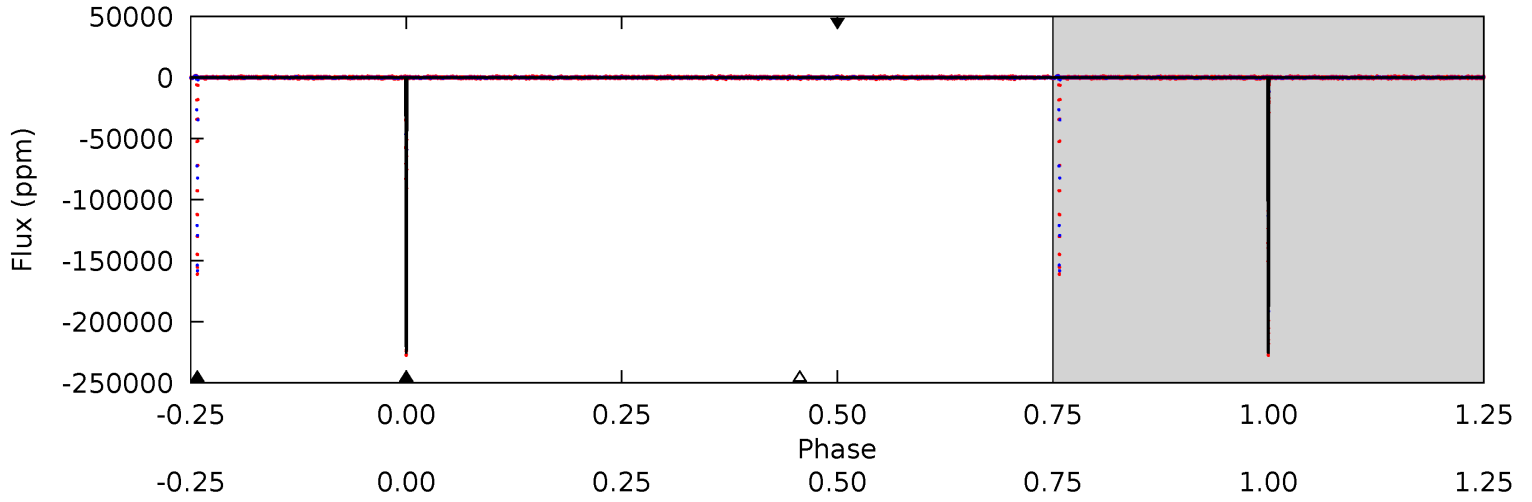
TCE 006756202-01 P=290.776370 Days  $T_0=393.514164$  (BKJD)



# DV Model-Shift Uniqueness Test

006756202-01, P = 290.778151 Days, E = 102.732815 Days

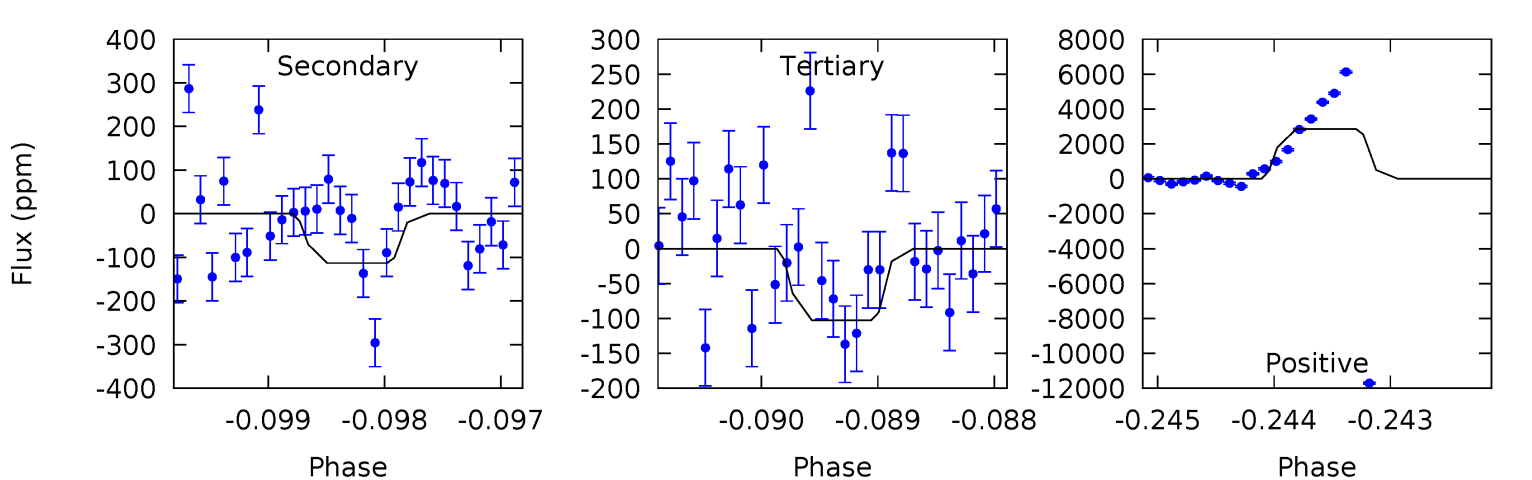
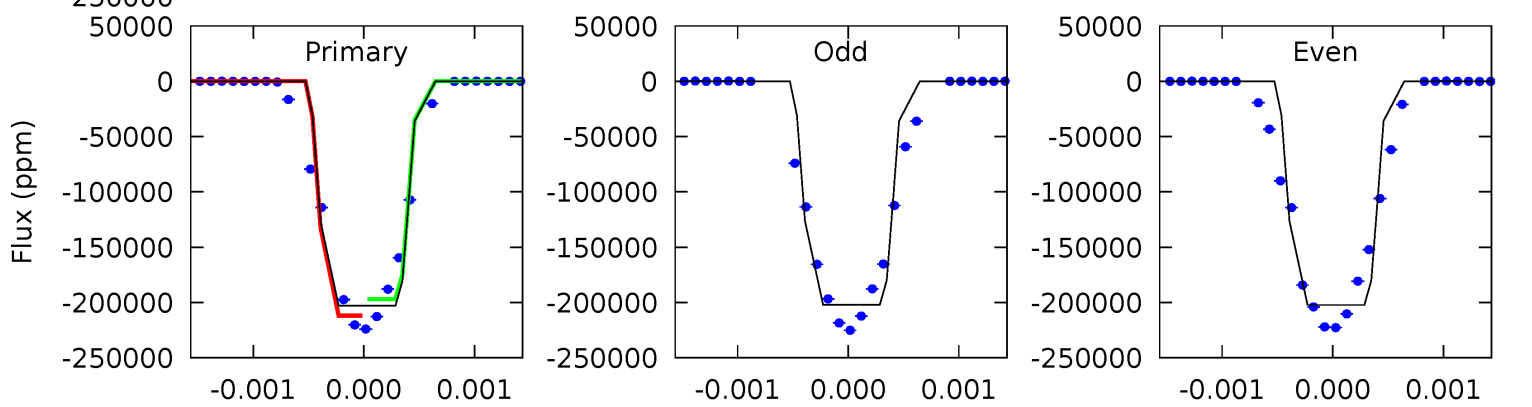
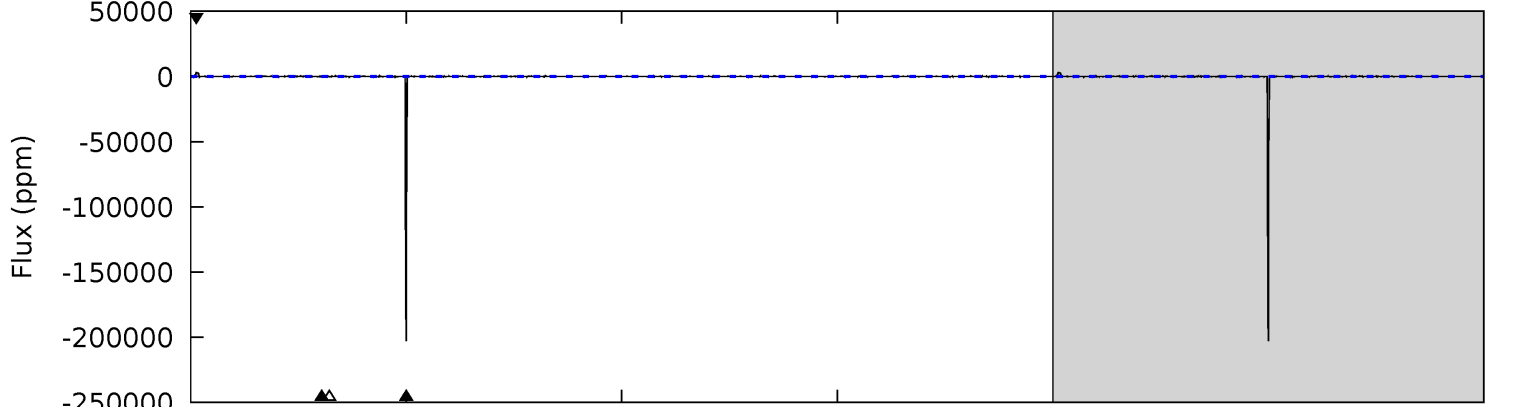
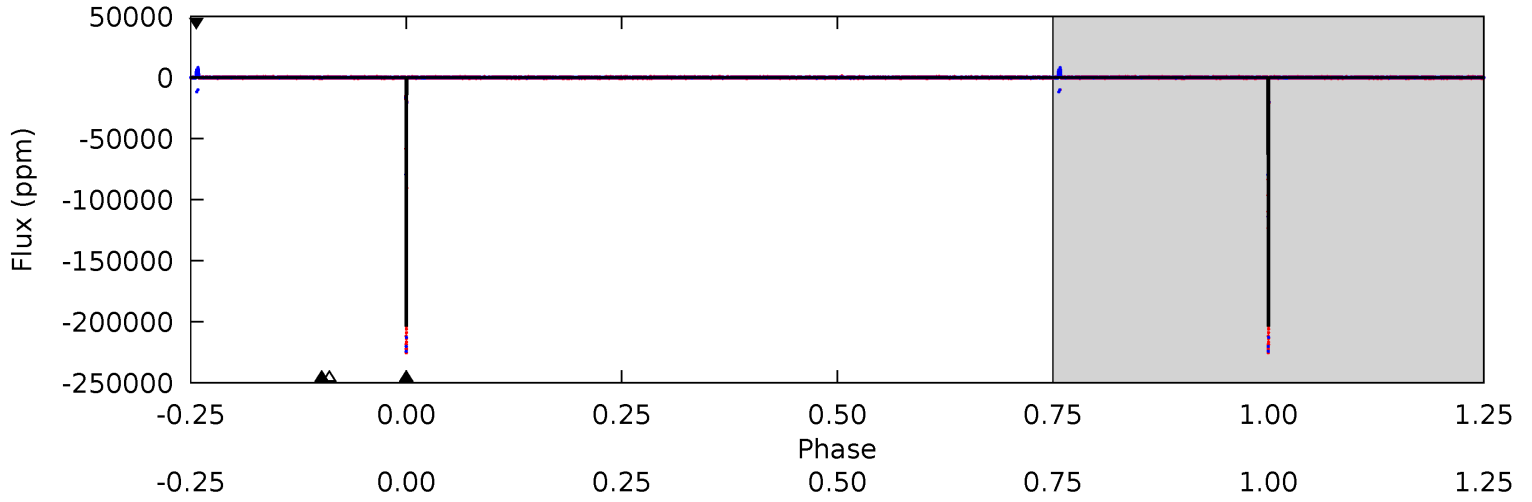
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5951	1883	14.4	21.8	5.35	3.13	5.92	5937	5929	1869	1862	23.5	1.00	0.01	1.72



# Alt Model-Shift Uniqueness Test

006756202-01, P = 290.776370 Days, E = 102.737794 Days

Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5047	2.81	2.55	71.1	5.43	3.26	2.96	5045	4976	0.27	-68.3	3.24	1.00	0.01	167.9



### Stellar Parameters For KIC 006756202

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$5207^{+154}_{-138}$	$4.585^{+0.048}_{-0.072}$	$-0.300^{+0.300}_{-0.300}$	$0.734^{+0.098}_{-0.066}$	$0.756^{+0.091}_{-0.066}$	$2.693^{+0.581}_{-0.686}$
	+3%/-3%	+1%/-2%	+100%/-100%	+13%/-9%	+12%/-9%	+22%/-25%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology  
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

### Secondary Eclipse Parameters for KIC 006756202-01 / KOI 3547.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	$A_{\text{obs}}$
DV	$-71548 \pm 38$	$44.11^{+4.18}_{-3.36}$	$313^{+11}_{-11}$	$4000^{+118}_{-123}$	$13281^{+2065}_{-1852}$
Alt.	$-113 \pm 40$	$37.95^{+3.66}_{-3.12}$	$312^{+12}_{-11}$	$1809^{+66}_{-75}$	$26^{+10}_{-10}$

$T_{\text{max}}$  = Theoretical Maximum Planetary Temperature

$T_{\text{obs}}$  = Observed Planetary Temperature (Assuming  $A=0.3$ )

$A_{\text{obs}}$  = Observed Albedo (Assuming  $T=0$ )

If a secondary eclipse is present, the system is likely an EB if  $T_{\text{obs}} \gg T_{\text{max}}$  AND  $A_{\text{obs}} \gg 1.0$

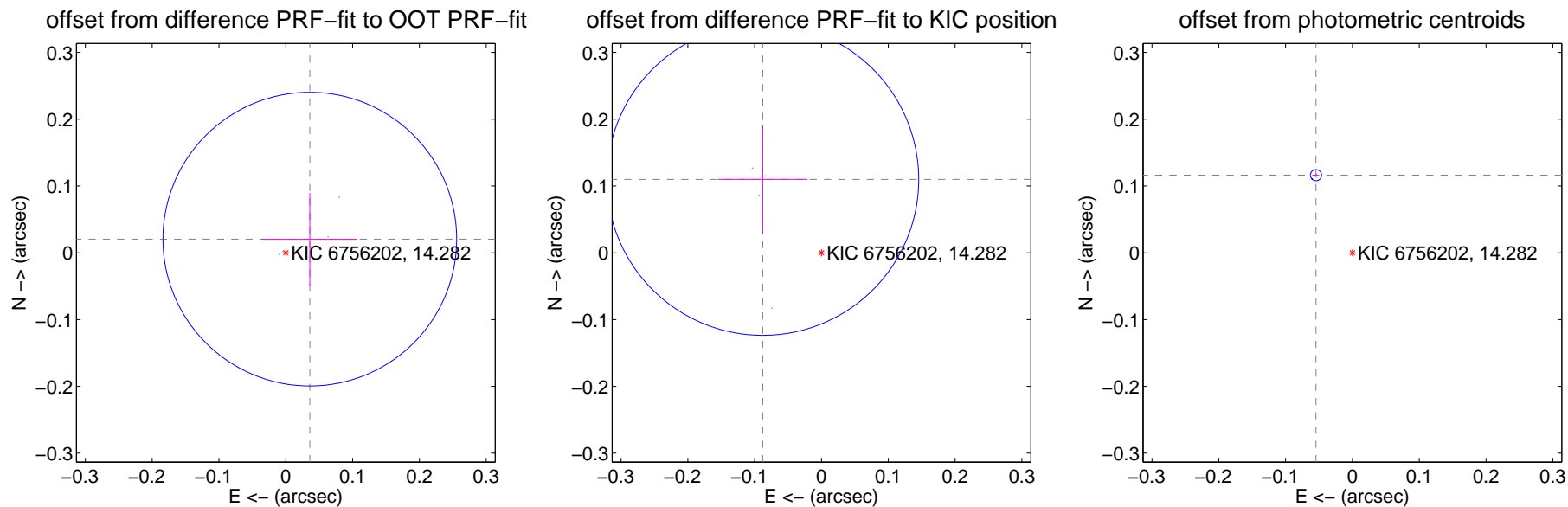
## DV Centroid Data

Supplemental centroid analysis for 006756202-01. Kepler magnitude: 14.28. Transit SNR 2205.11

There are 4 quarters with good PRF difference image offsets

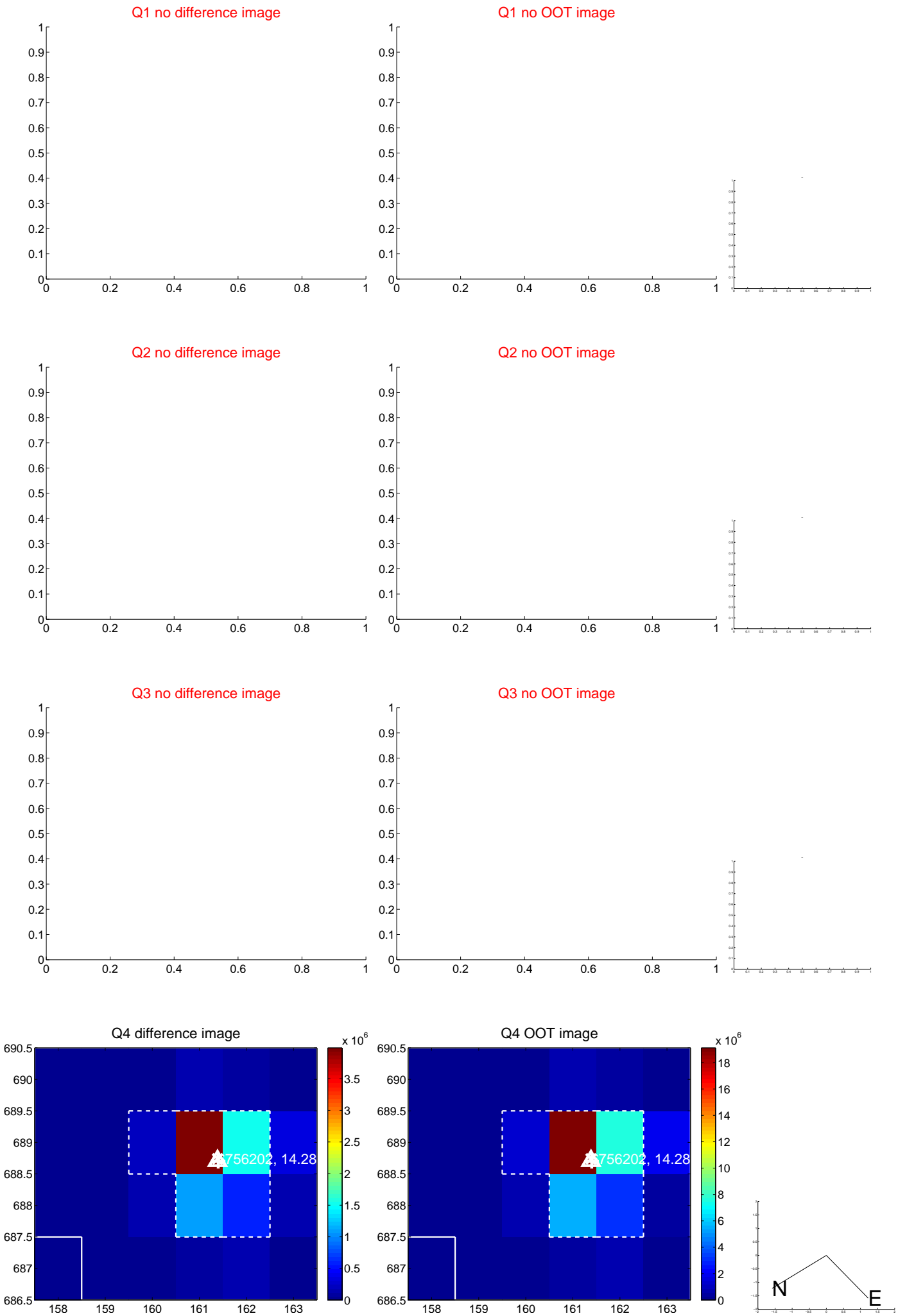
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.041 \pm 0.073$	0.56	$-0.036 \pm 0.071$	$0.020 \pm 0.069$
PRF-fit source offset from KIC position	$0.141 \pm 0.078$	1.81	$0.088 \pm 0.067$	$0.110 \pm 0.081$
photometric centroid source offset	$0.13 \pm 0.00$	46.03	$0.05 \pm 0.00$	$0.12 \pm 0.00$



Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three- $\sigma$ . Red \*: target star. Blue \*: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

Q5 no difference image



Q5 no OOT image



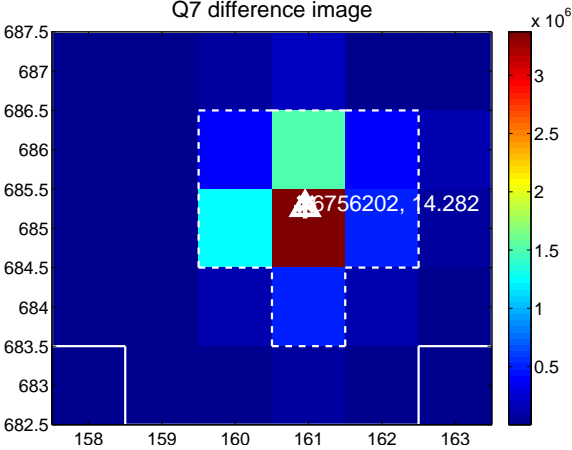
Q6 no difference image



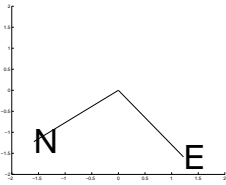
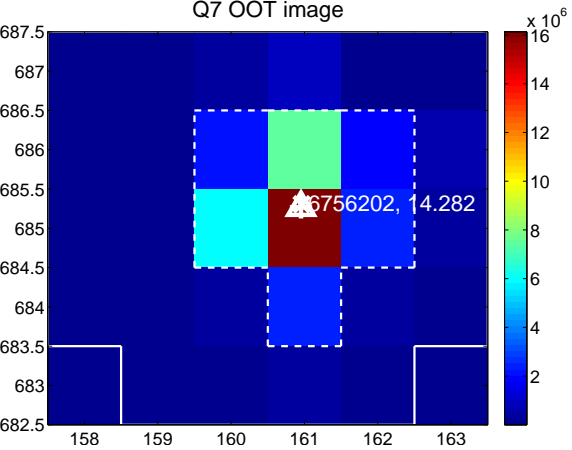
Q6 no OOT image



Q7 difference image



Q7 OOT image



Q8 no difference image

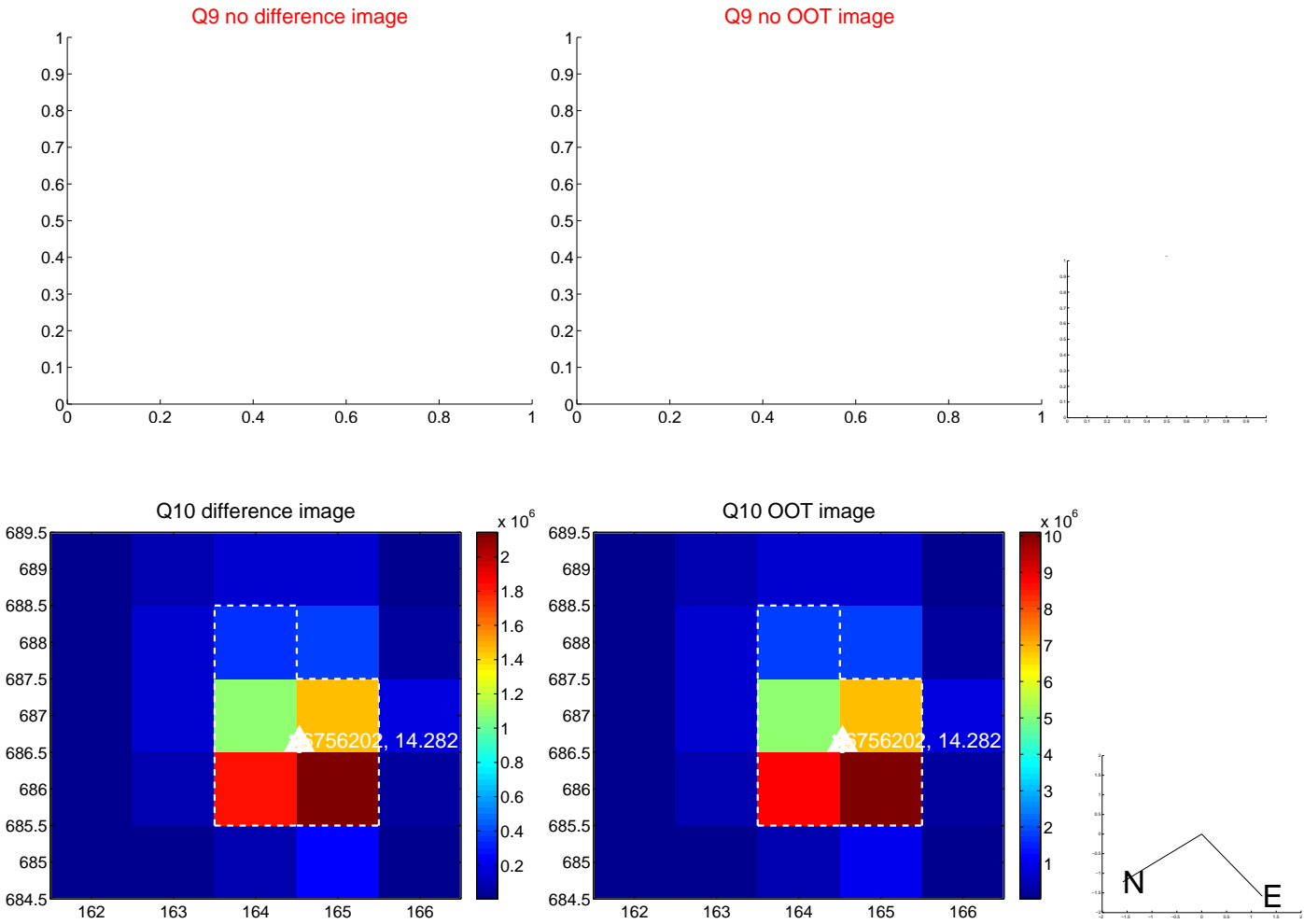


Q8 no OOT image

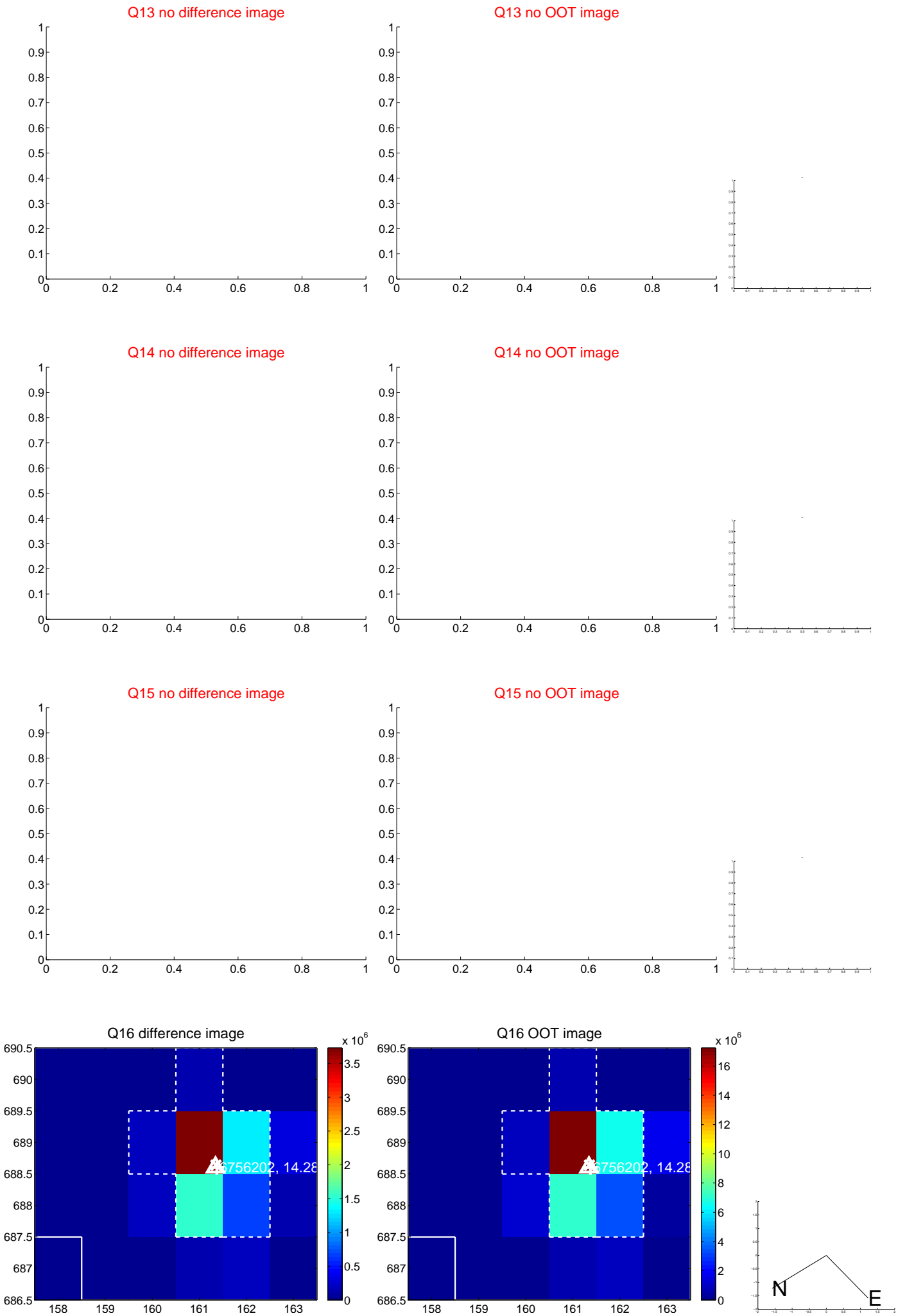




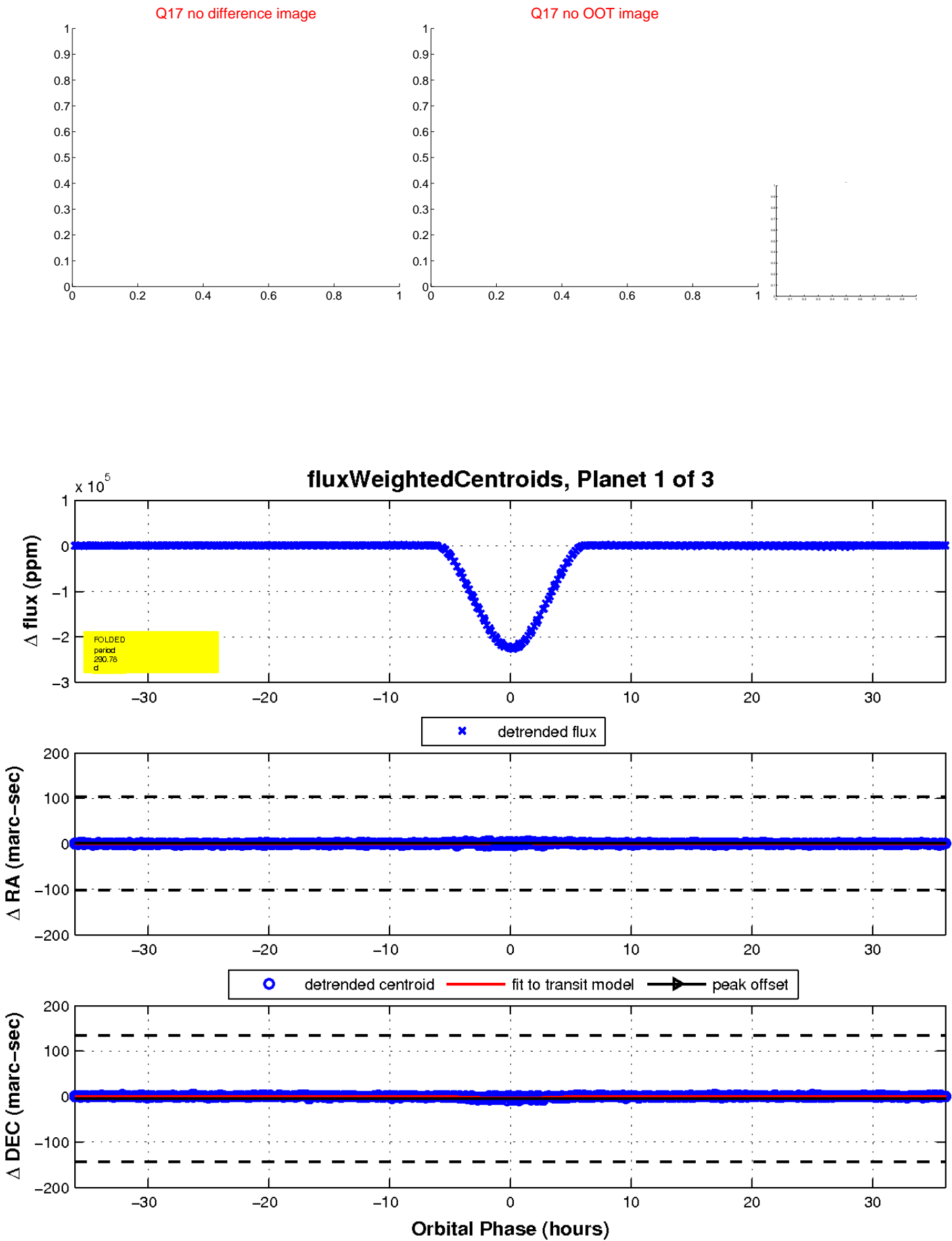
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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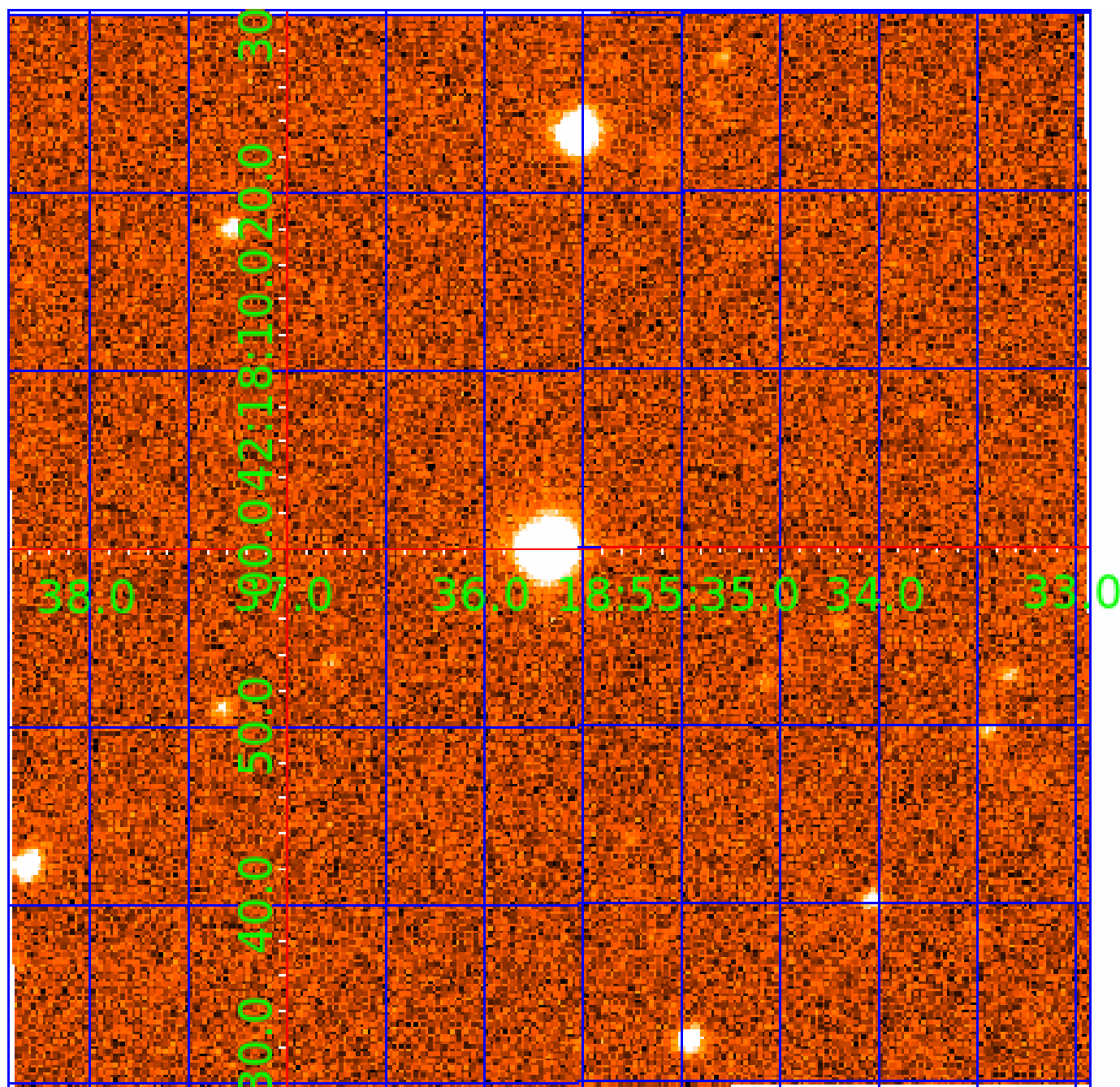


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# UKIRT Image

Declination



# KIC 006756202

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006756202-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

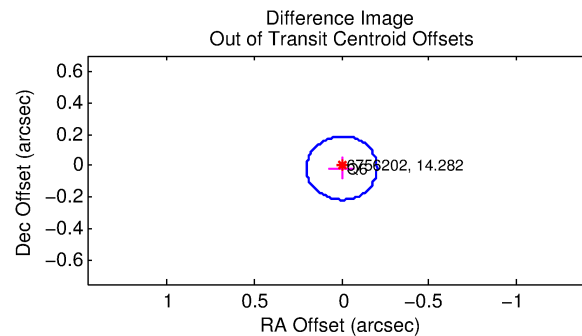
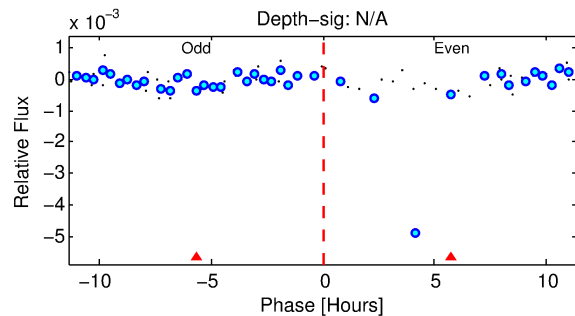
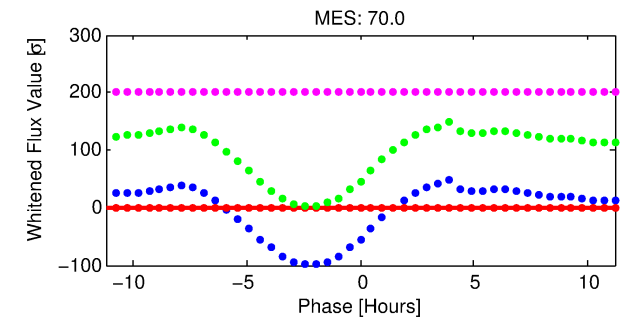
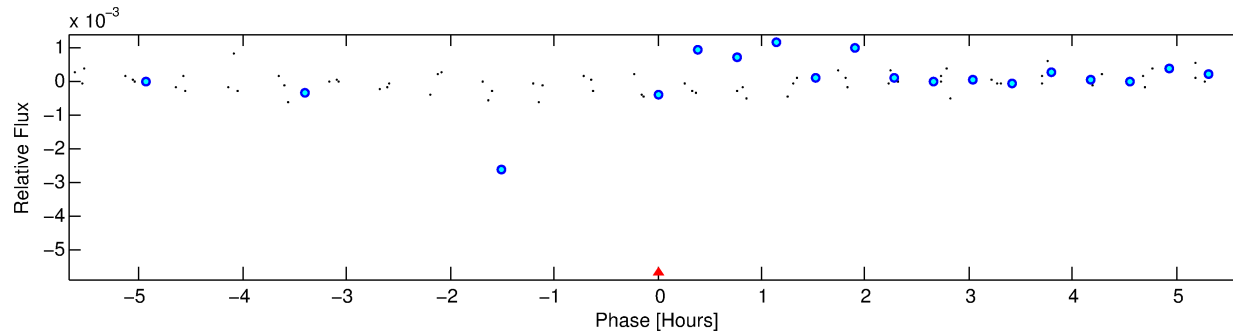
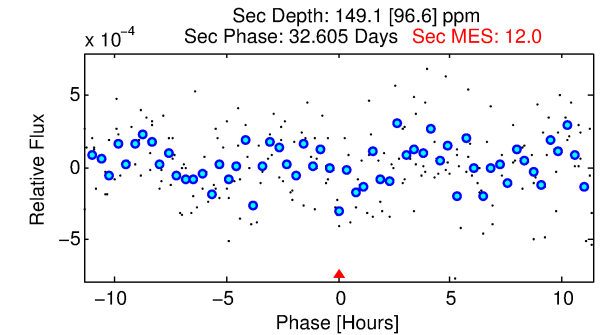
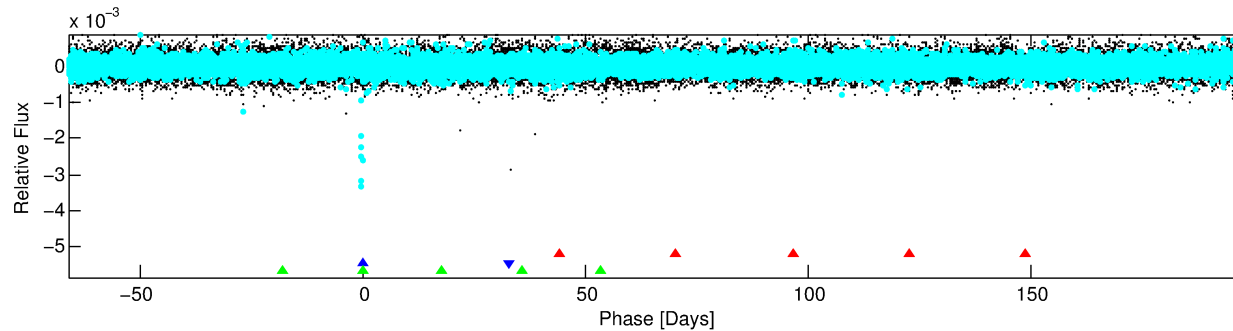
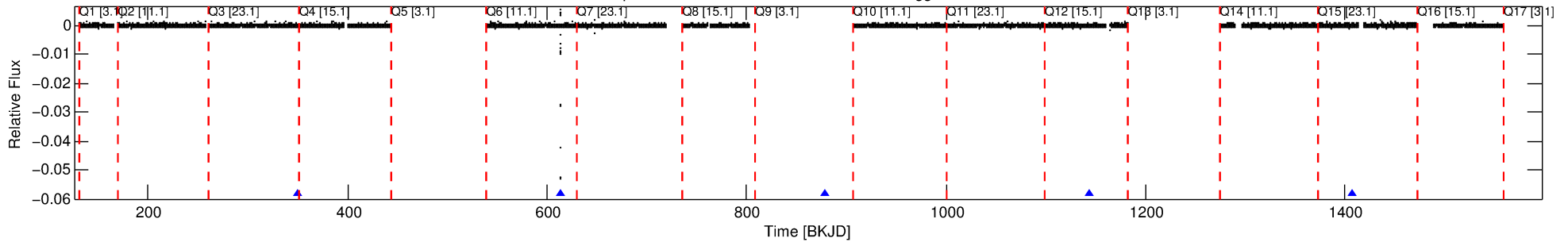
## Ephemeris Match Information For 006756202-02

No Significant Match Found

# DV One-Page Summary

KIC: 6756202 Candidate: 2 of 3 Period: 264.642 d  
KOI: K03547 Corr: No Ephemeris Match

Kp: 14.28 R\*: 0.73 Rs Teff: 5207.0 K Logg: 4.58 Fe/H: -0.300



## TPS TCE Results:

Period = 264.64185 d  
Epoch = 350.2182 BKJD

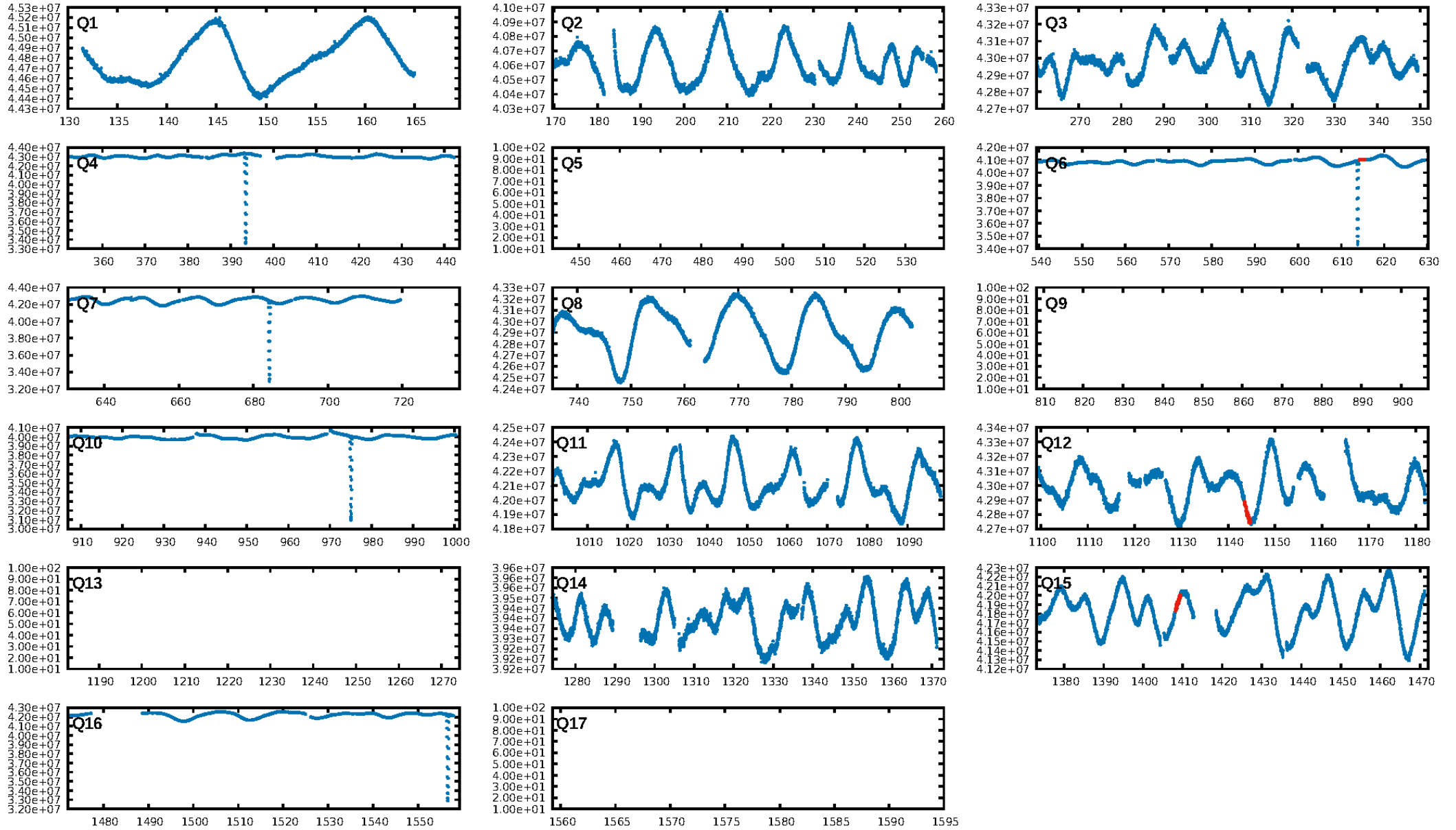
**DV fit results are unavailable**

## DV Diagnostic Results:

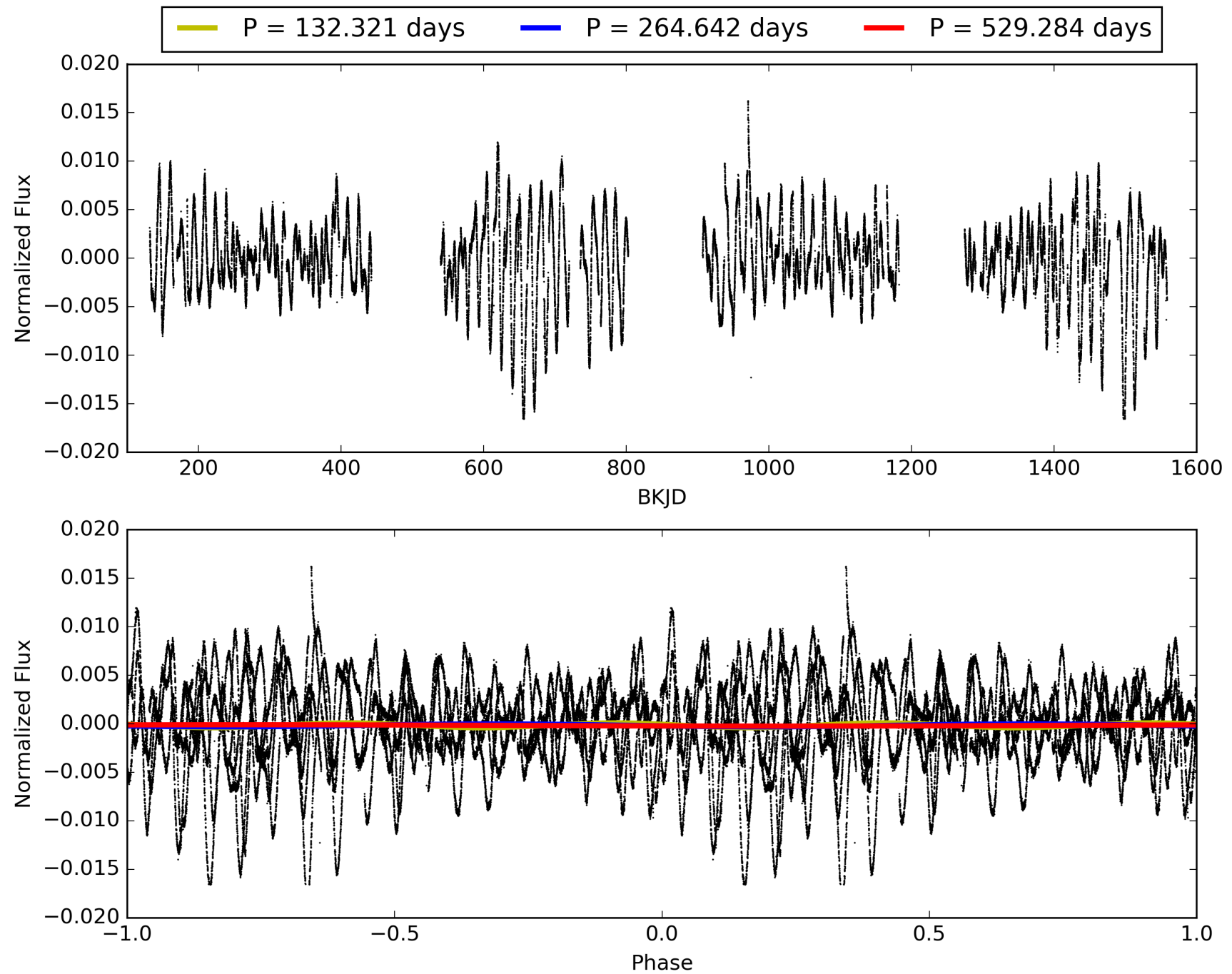
ShortPeriod-sig: N/A  
LongPeriod-sig: 100.0% [24.45σ]  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: 0.00e+00  
RollingBand-fgt: 1.00 [4/4]  
**GhostDiagnostic-chr: -0.9578**

Centroid-sig: 94.8%  
Centroid-so: 0.123 arcsec [0.57σ]  
OotOffset-rm: 0.014 arcsec [0.21σ]  
KicOffset-rm: 0.109 arcsec [1.62σ]  
OotOffset-st: 1/0/0/0 [1]  
KicOffset-st: 1/0/0/0 [1]  
DiffImageQuality-fgm: 0.00 [0/1]  
DiffImageOverlap-fno: 0.67 [2/3]

# TCE 006756202-02, PDC Light Curves



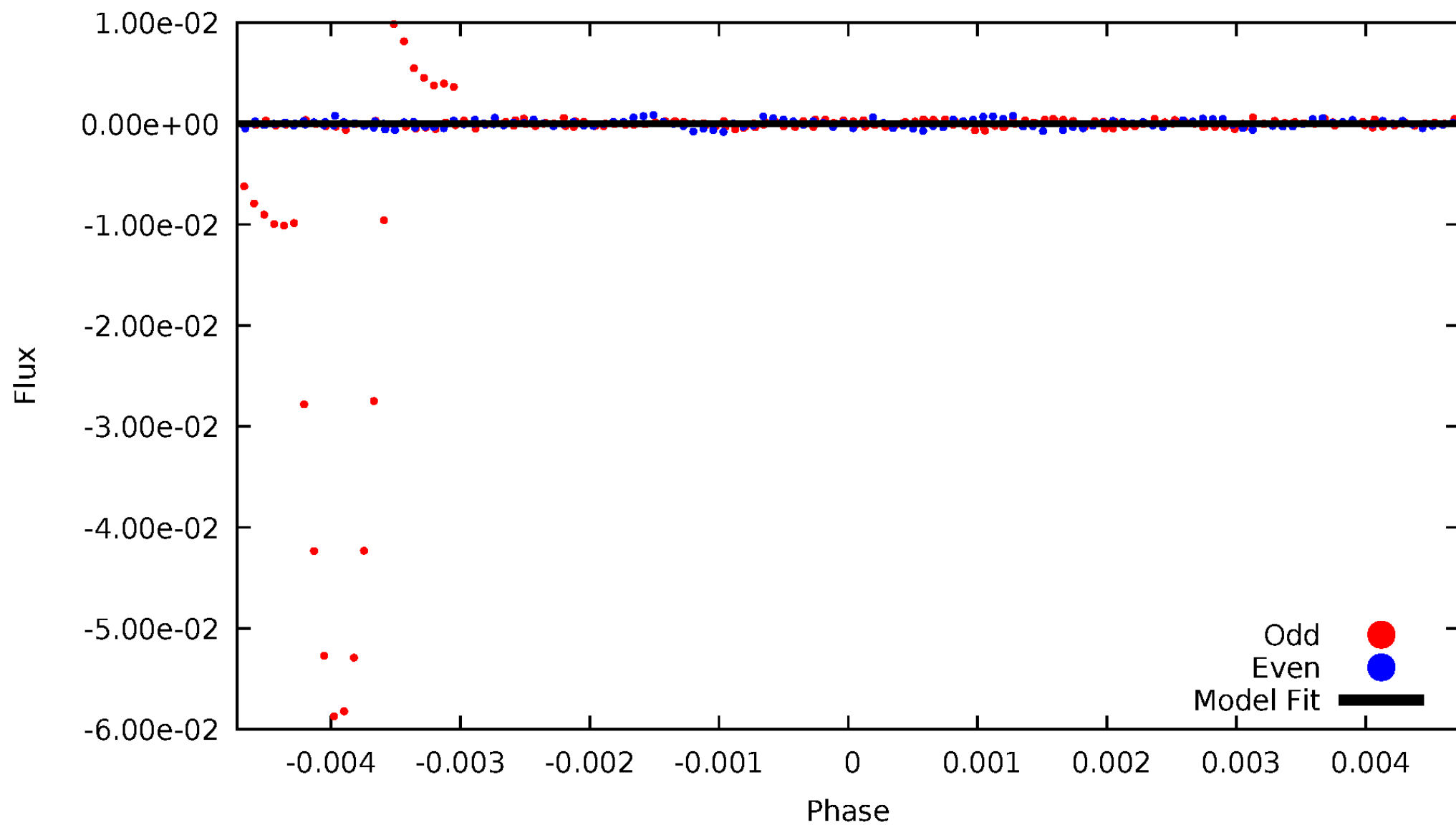
# TCE 006756202-02





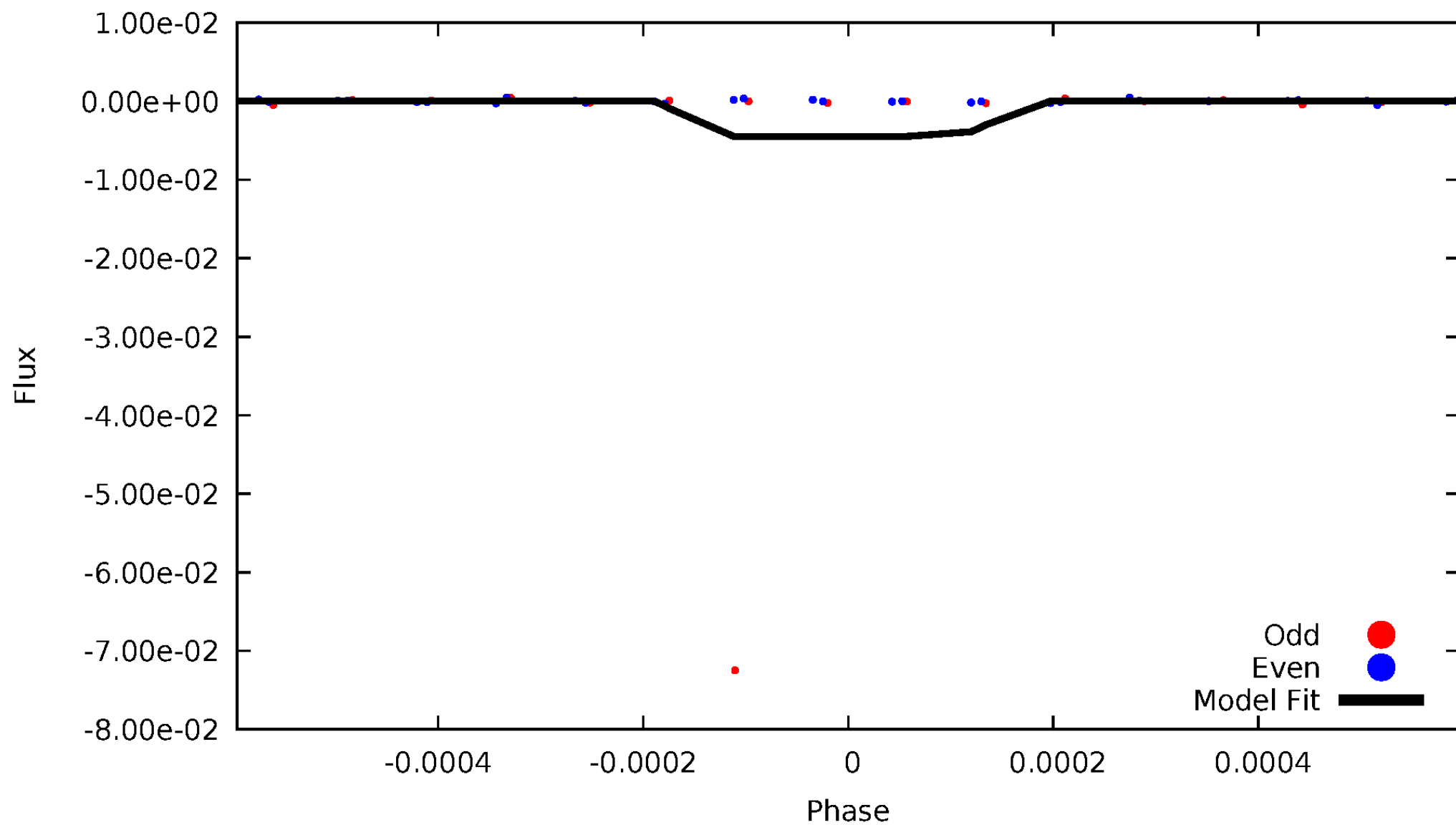
DV Odd/Even

TCE 006756202-02



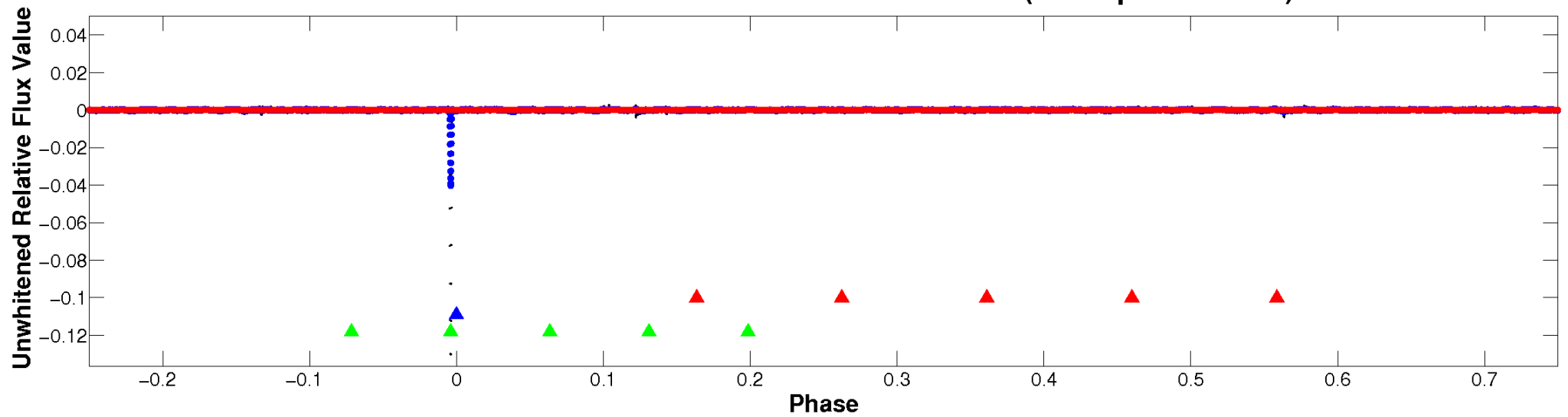
# ALT Odd/Even

TCE 006756202-02



# Non-Whitened Vs. Whitened Light Curve

**Planet 2 : Phased Unwhitened Flux Time Series (TPS Epoch/Period)**

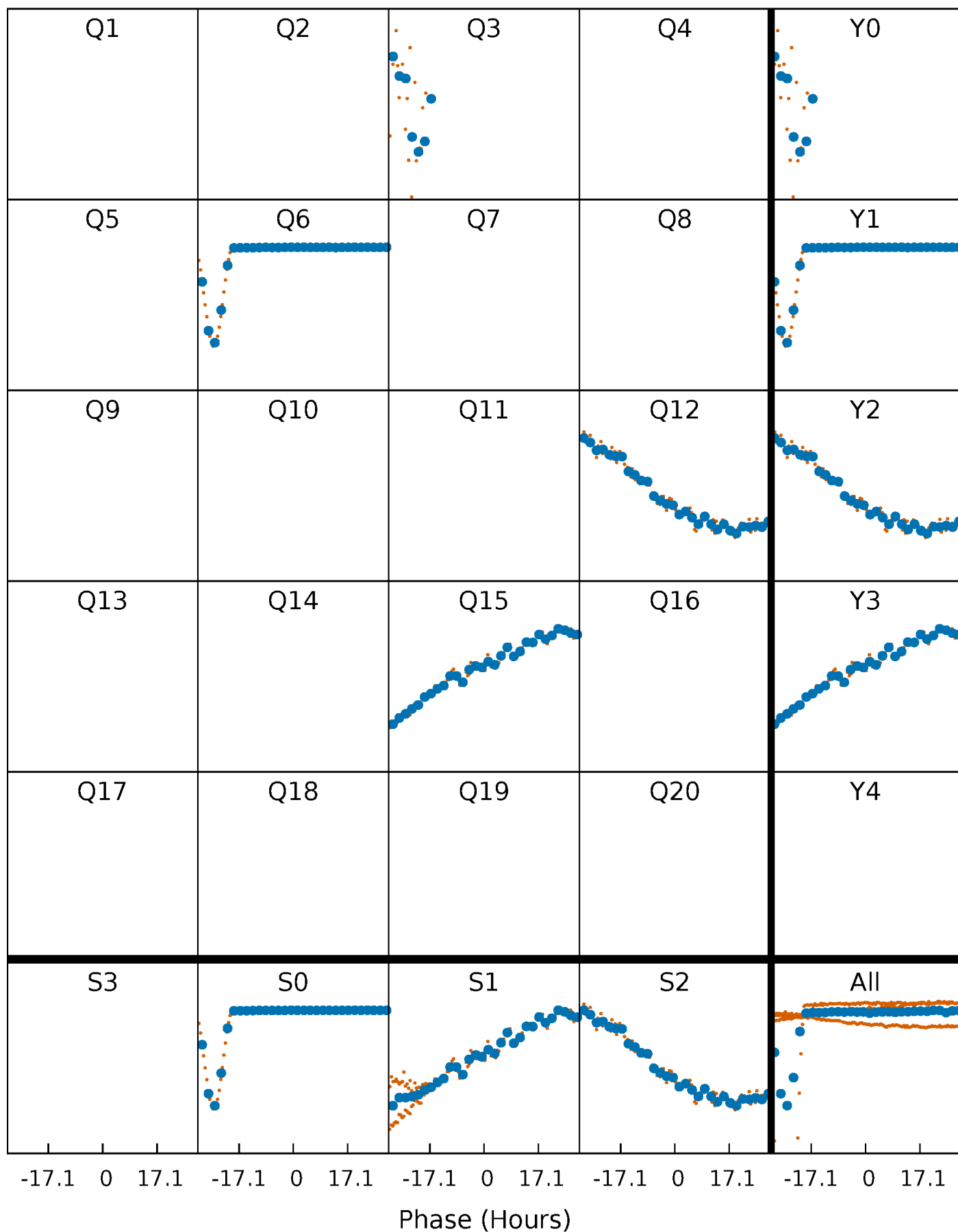


**Planet 2 : Phased Whitened Flux Time Series (TPS Epoch/Period)**



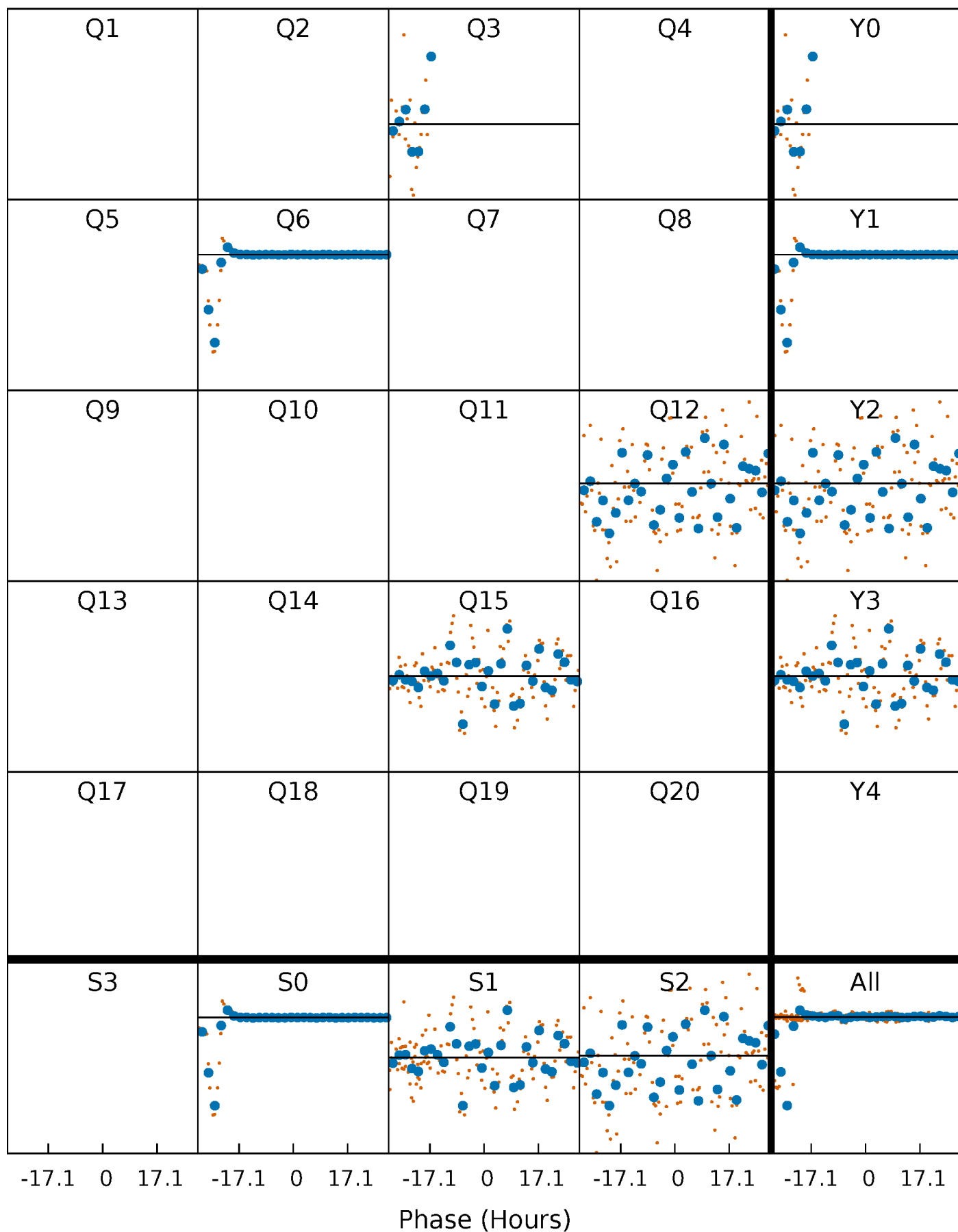
# PDC Quarter-Phased Transit Curves

TCE 006756202-02     $P=264.641847$  Days     $T_0=350.218198$  (BKJD)



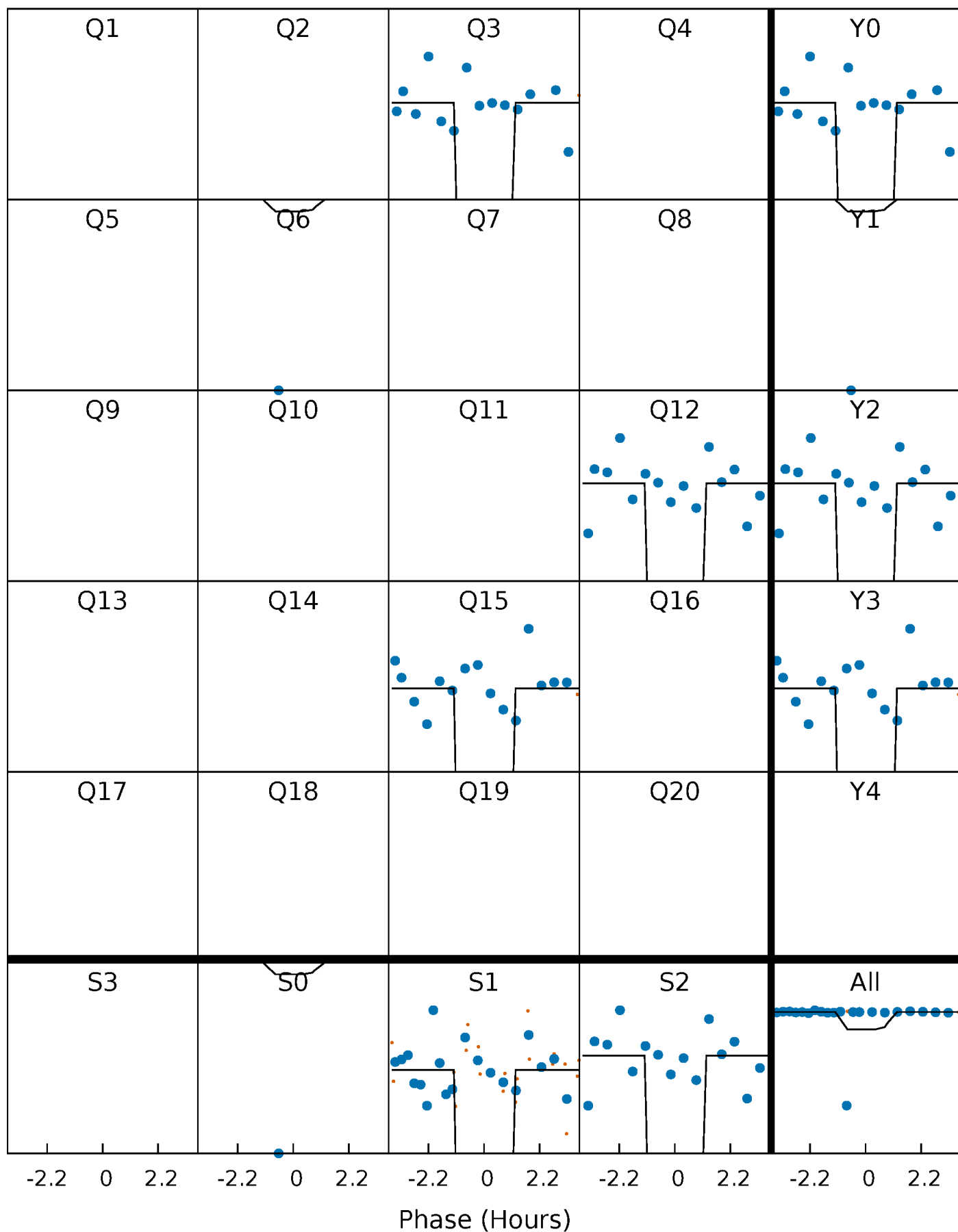
# DV Quarter-Phased Transit Curves

TCE 006756202-02 P=264.641847 Days  $T_0=350.218198$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

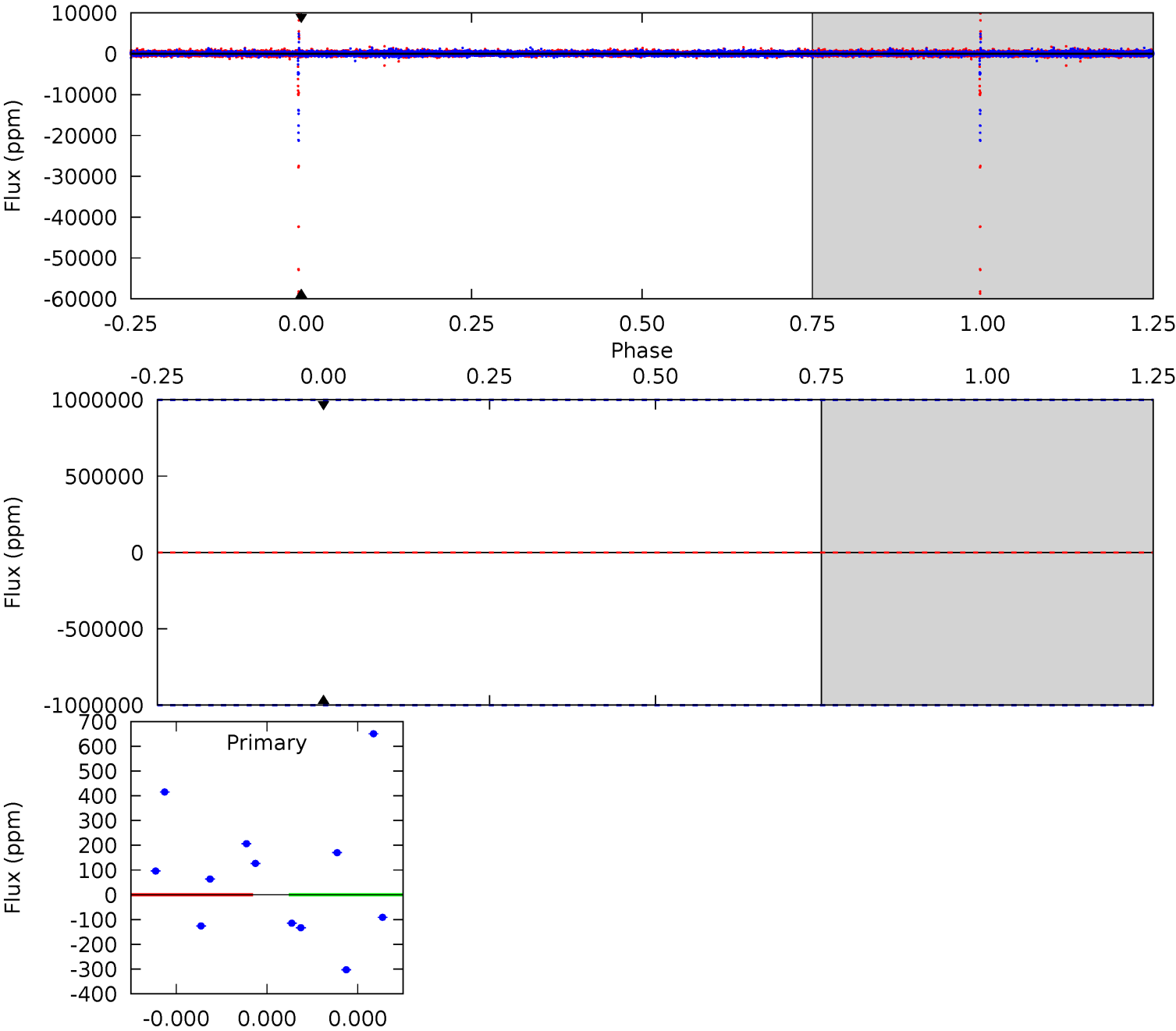
TCE 006756202-02 P=264.641847 Days  $T_0=349.338388$  (BKJD)



# DV Model-Shift Uniqueness Test

006756202-02, P = 264.641847 Days, E = 85.576351 Days

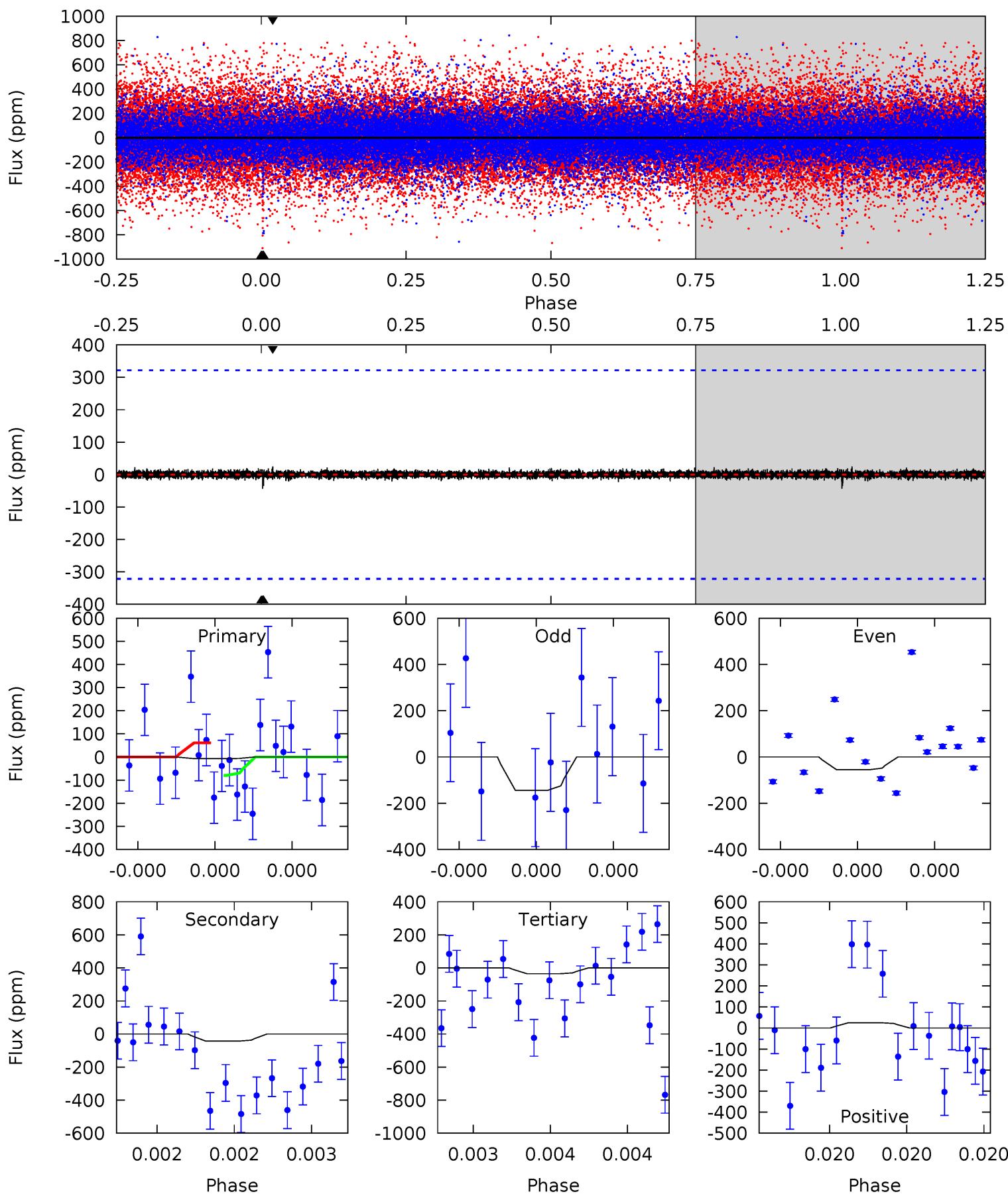
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



# Alt Model-Shift Uniqueness Test

006756202-02, P = 264.641847 Days, E = 84.696541 Days

Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.13	0.75	0.61	0.44	5.62	3.56	0.09	-0.49	-0.31	0.14	0.32	0.67	0.15	0.37	0.17





### Stellar Parameters For KIC 006756202

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$5207^{+154}_{-138}$	$4.585^{+0.048}_{-0.072}$	$-0.300^{+0.300}_{-0.300}$	$0.734^{+0.098}_{-0.066}$	$0.756^{+0.091}_{-0.066}$	$2.693^{+0.581}_{-0.686}$
	+3%/-3%	+1%/-2%	+100%/-100%	+13%/-9%	+12%/-9%	+22%/-25%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology  
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

### Secondary Eclipse Parameters for KIC 006756202-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	$A_{\text{obs}}$
DV	$0 \pm 1000000$	$7.82^{+7.62}_{-4.96}$	$323^{+11}_{-12}$	$-3556^{+16145}_{-8546}$	$-6210.283^{+779996.089}_{-738839.255}$
Alt.	$-43 \pm 57$	$8.32^{+7.21}_{-5.36}$	$323^{+12}_{-11}$	$2163^{+641}_{-4032}$	$130^{+981}_{-161}$

$T_{\text{max}}$  = Theoretical Maximum Planetary Temperature

$T_{\text{obs}}$  = Observed Planetary Temperature (Assuming  $A=0.3$ )

$A_{\text{obs}}$  = Observed Albedo (Assuming  $T=0$ )

If a secondary eclipse is present, the system is likely an EB if  $T_{\text{obs}} \gg T_{\text{max}}$  AND  $A_{\text{obs}} \gg 1.0$

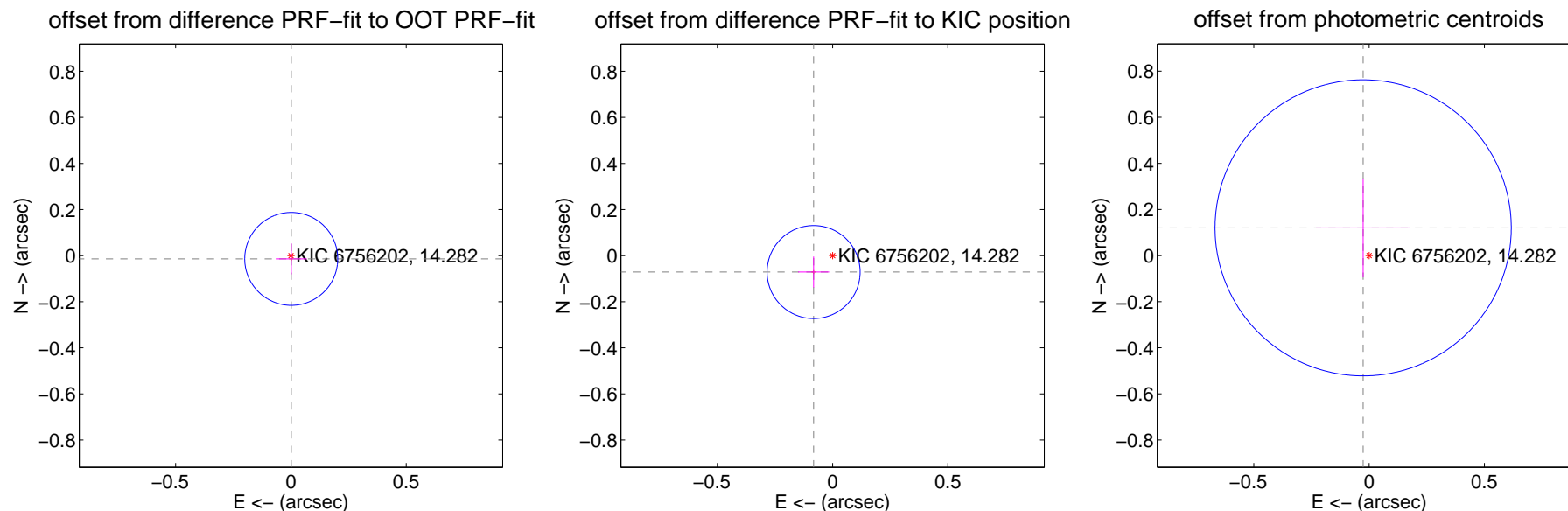
## DV Centroid Data

Supplemental centroid analysis for 006756202-02. Kepler magnitude: 14.28. Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.014 \pm 0.067$	0.21	$-0.001 \pm 0.067$	$-0.014 \pm 0.067$
PRF-fit source offset from KIC position	$0.109 \pm 0.067$	1.62	$0.082 \pm 0.067$	$-0.071 \pm 0.067$
photometric centroid source offset	$0.12 \pm 0.21$	0.57	$0.03 \pm 0.20$	$0.12 \pm 0.21$

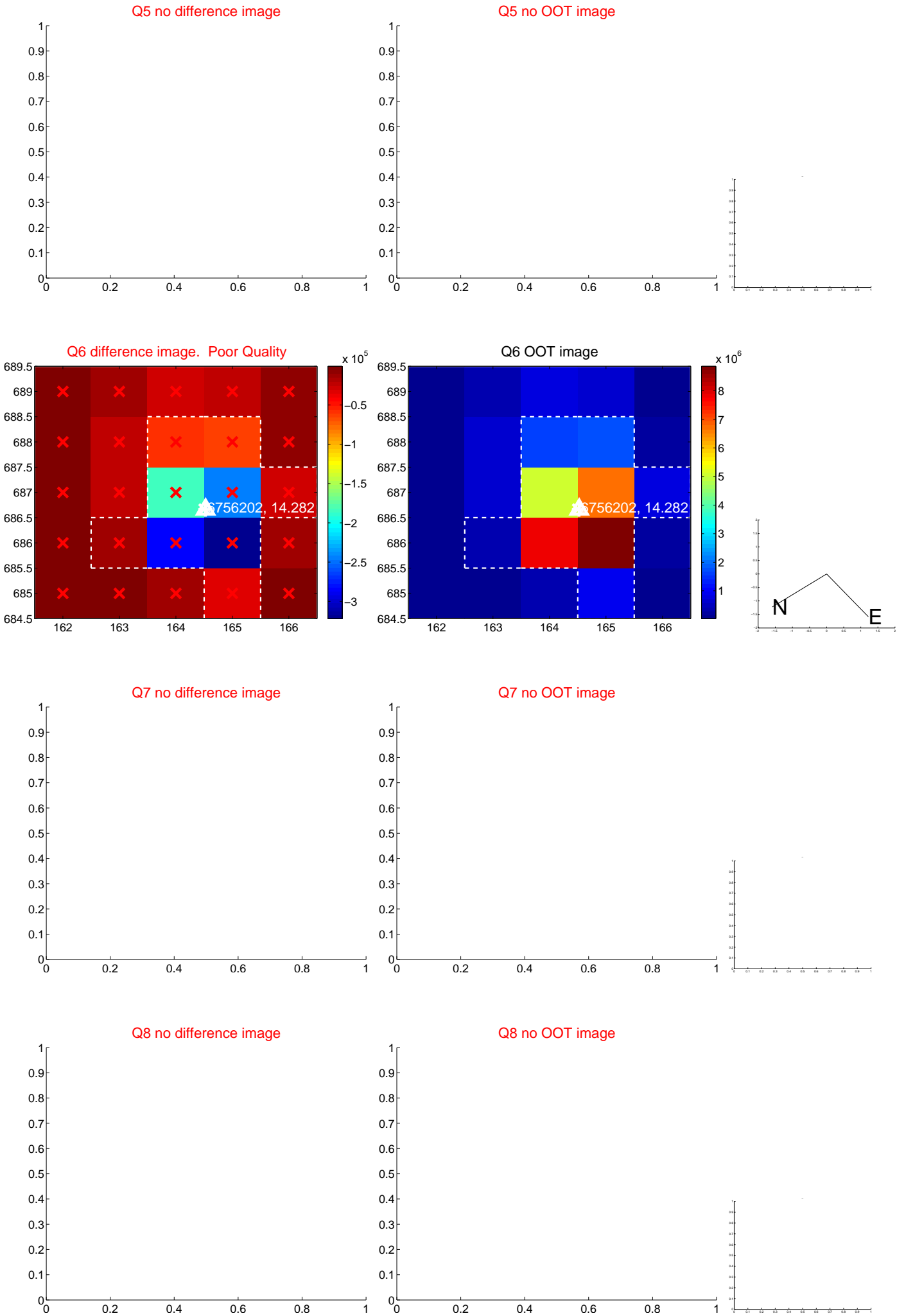


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three- $\sigma$ . Red \*: target star. Blue \*: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

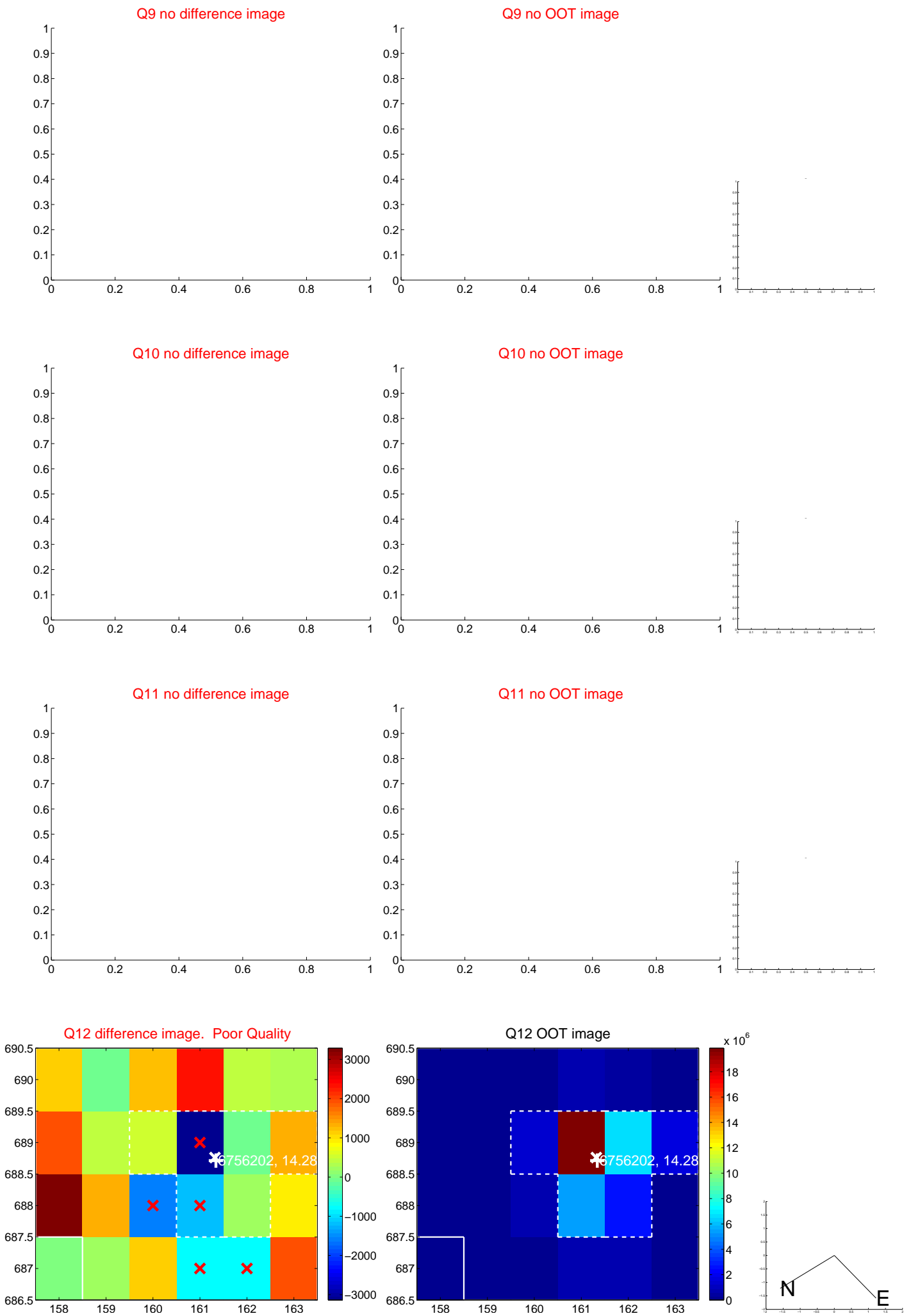
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



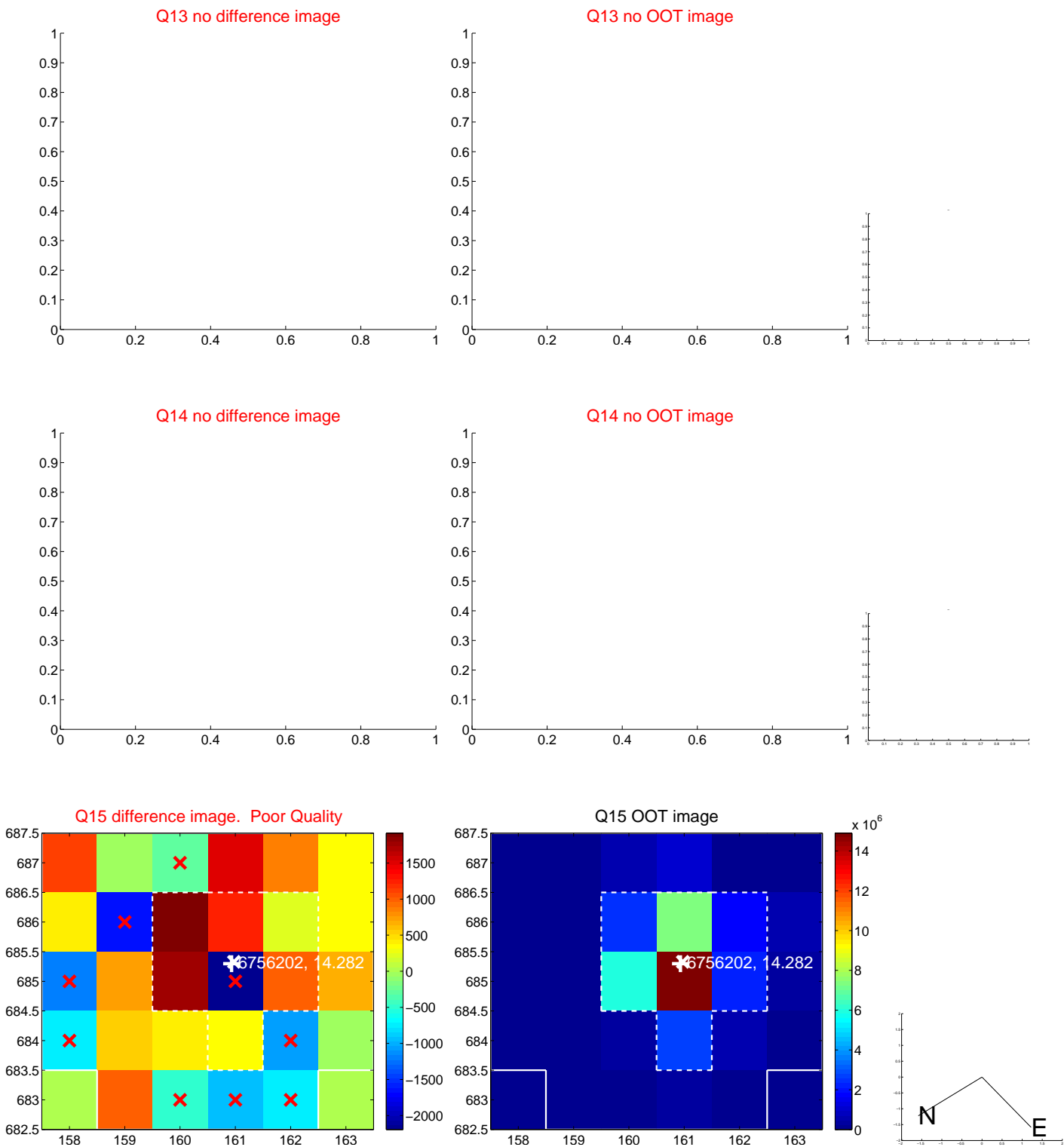
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



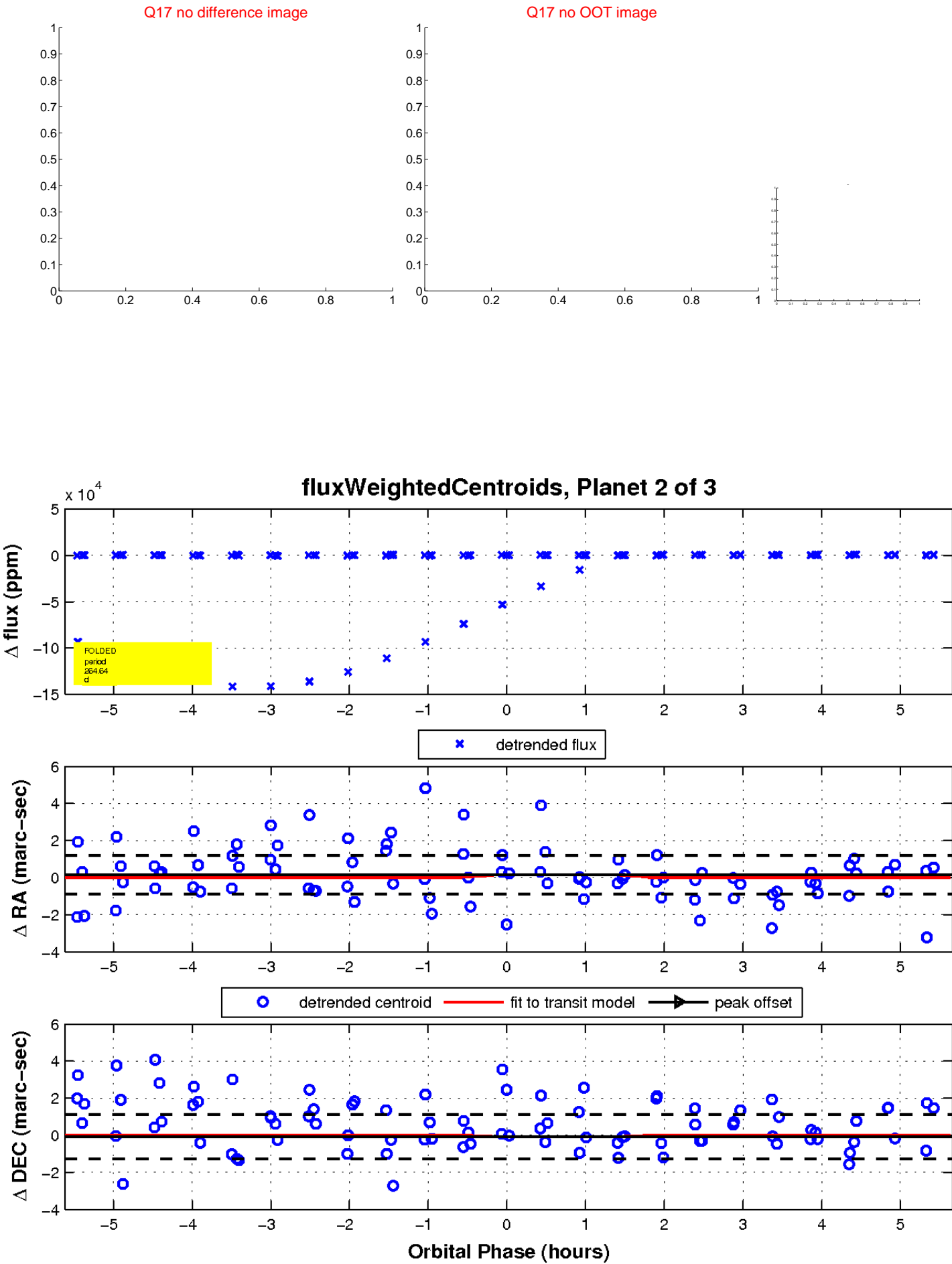
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

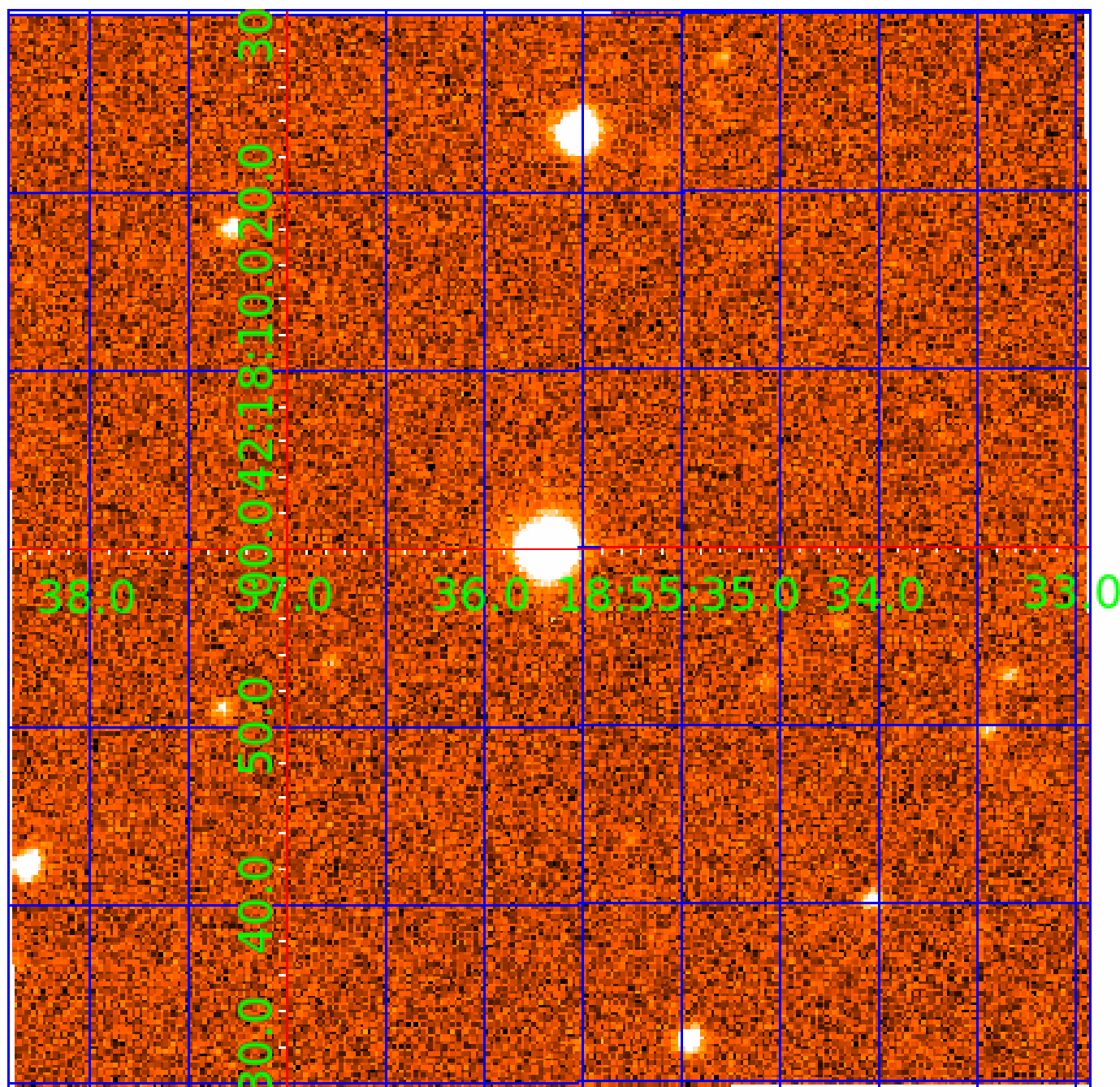


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



UKIRT Image

Declination





# KIC 006756202

## Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	$R_{\star}$ ( $R_{\odot}$ )	$T_{\star}$ (K)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
006756202-01	OBS	3547.01	290.778151	393.510966	226208.3	12.033	3444.9	2205.1	0.73	5207	43.73	0.58
006756202-02	OBS	No	264.641847	350.218198	4454.4	15.000	70.0	-1.0	0.73	5207	4.79	0.66
006756202-03	OBS	No	282.511207	331.298712	1846.0	9.096	63.4	12.7	0.73	5207	6.17	0.60

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006756202-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—DEEP_V_SHAPED
006756202-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS
006756202-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS

**Notes:** OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

Ephemeris Match Information For 006756202-03

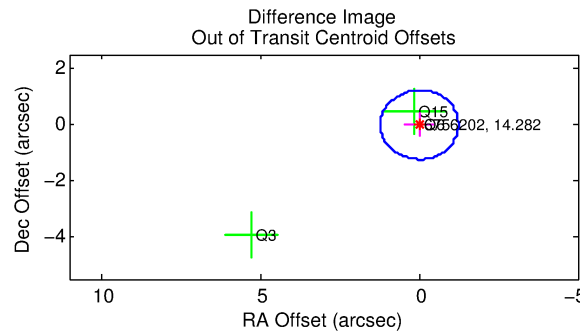
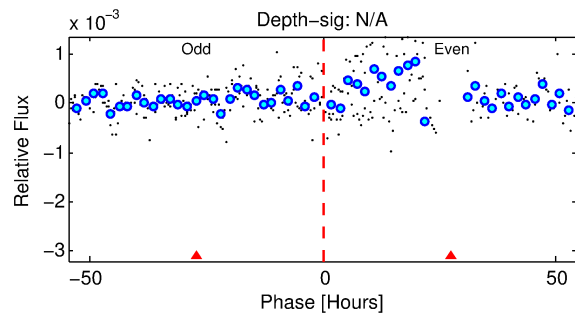
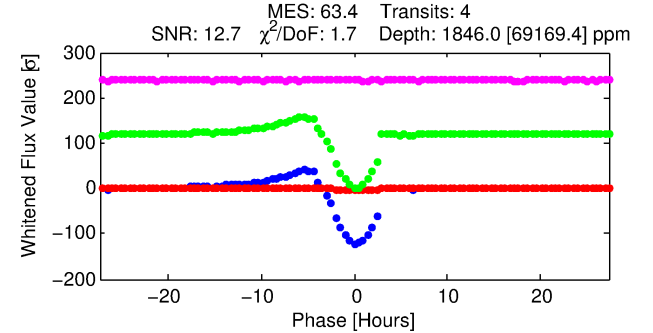
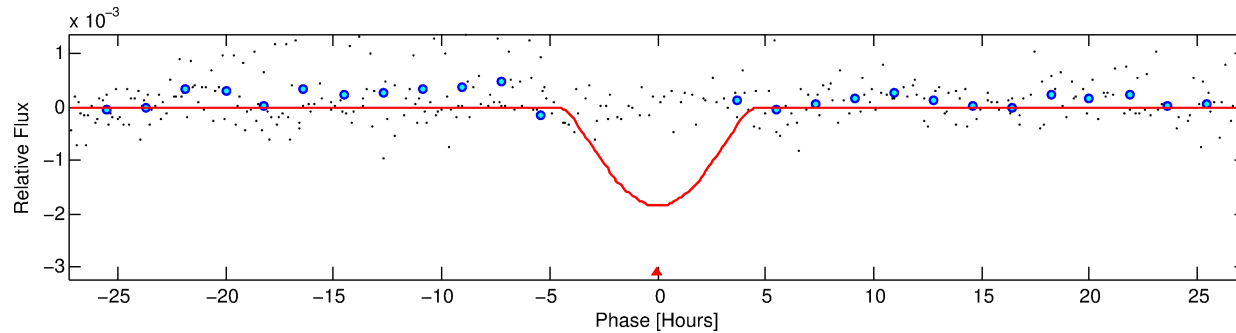
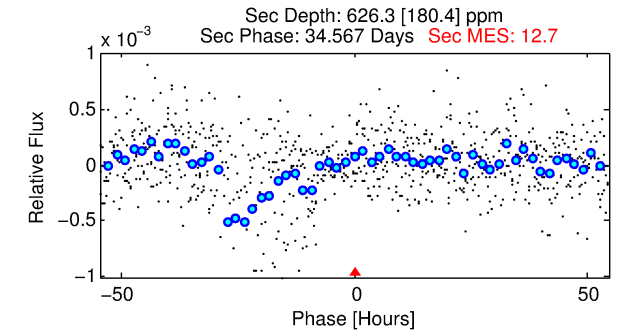
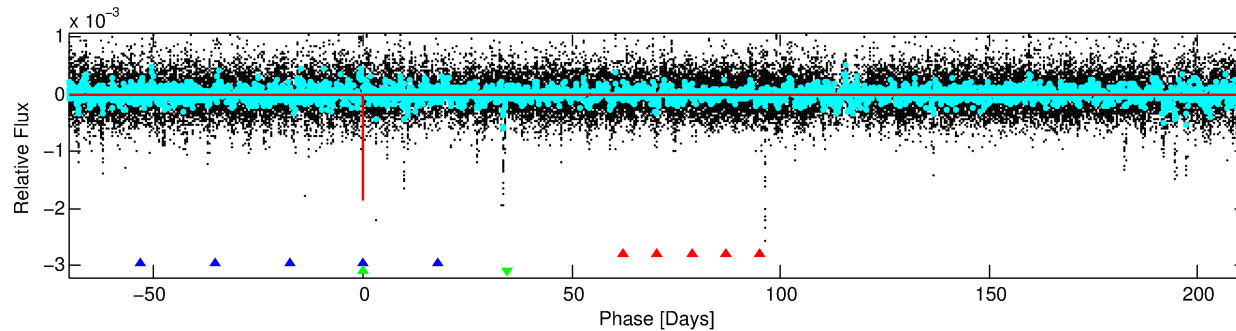
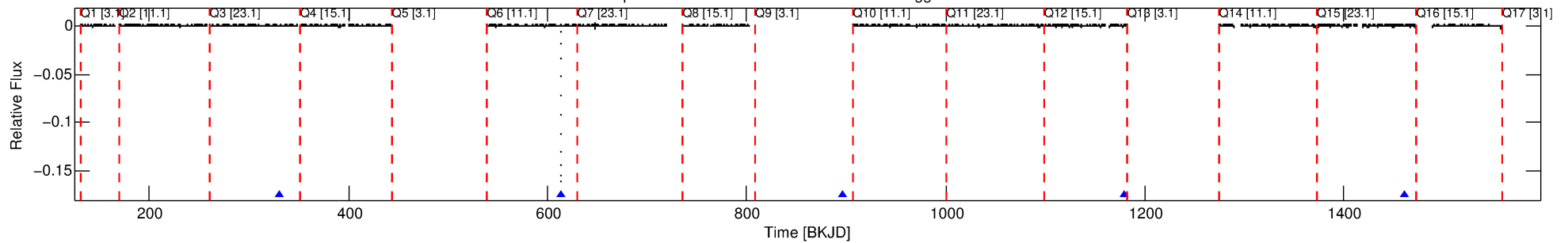
No Significant Match Found

# DV One-Page Summary

KIC: 6756202 Candidate: 3 of 3 Period: 282.511 d

KOI: K03547 Corr: No Ephemeris Match

Kp: 14.28 R\*: 0.73 Rs Teff: 5207.0 K Logg: 4.58 Fe/H: -0.300



## DV Fit Results:

Period = 282.51121 [0.04712] d  
Epoch = 331.2987 [0.0792] BKJD  
Rp/R\* = 0.0770 [1.6435]  
a/R\* = 94.89 [429.75]  
b = 1.00 [4.23]  
Seff = 0.60 [0.11]  
Teq = 225 [10] K  
Rp = 6.17 [131.64] Re  
a = 0.7677 [0.0804] AU  
Ag = 5340.82 [228036.60] [0.02σ]  
Teffp = 2969 [31690] K [0.09σ]

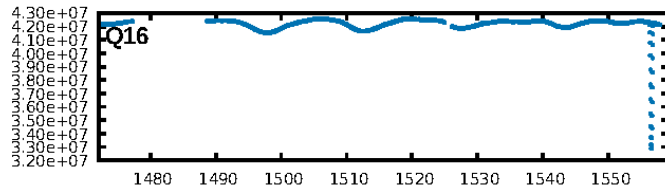
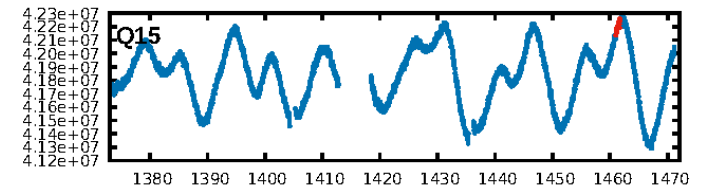
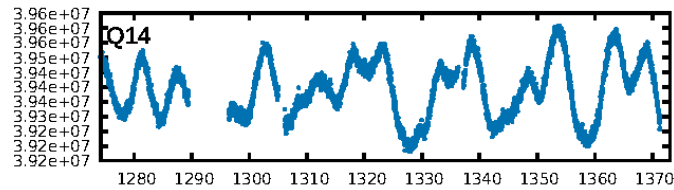
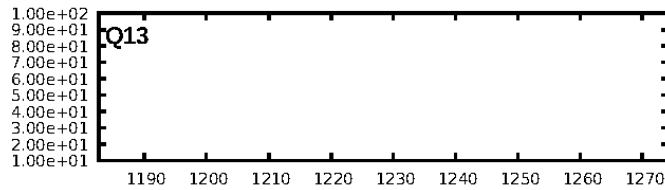
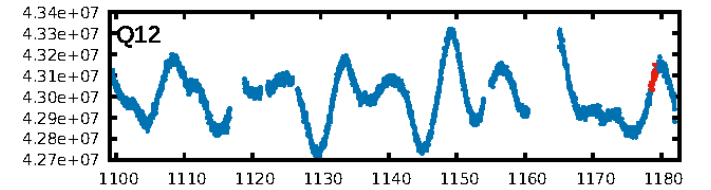
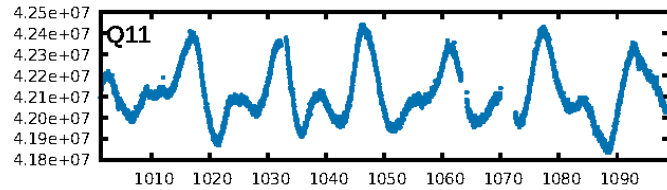
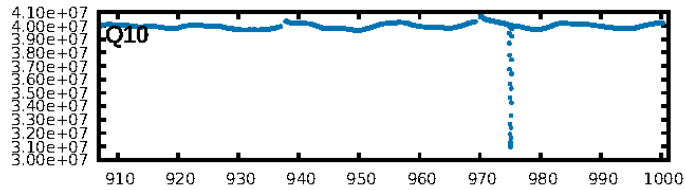
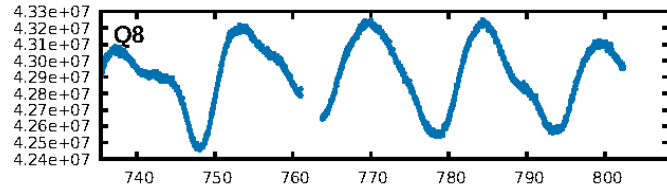
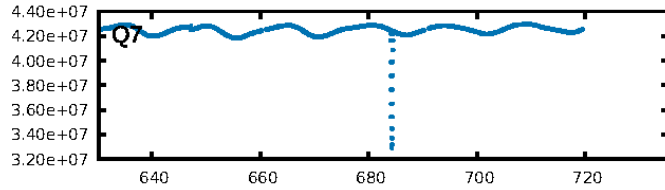
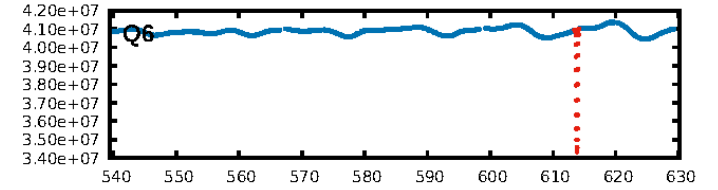
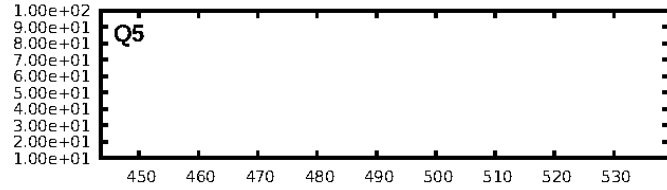
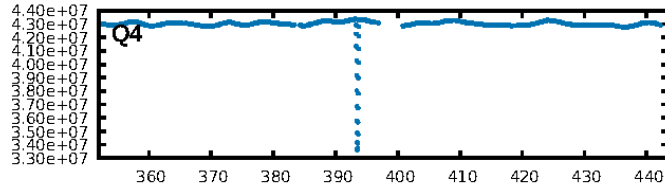
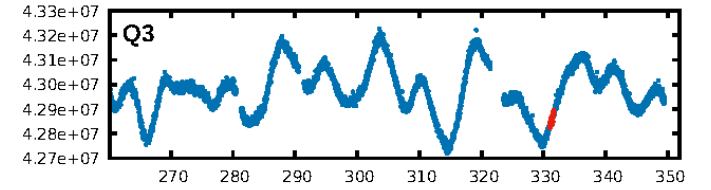
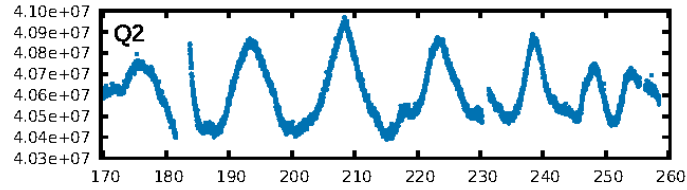
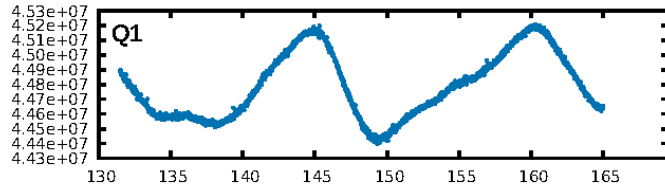
## DV Diagnostic Results:

ShortPeriod-sig: 100.0% [24.45σ]  
LongPeriod-sig: 100.0% [13.15σ]  
ModelChiSquare2-sig: 27.5%  
ModelChiSquareGof-sig: 100.0%  
Bootstrap-pfa: 1.09e-292  
RollingBand-fgt: 1.00 [4/4]  
GhostDiagnostic-chr: 0.2921  
Centroid-sig: 6.2%  
Centroid-so: 0.730 arcsec [1.81σ]  
OotOffset-rm: 0.014 arcsec [0.03σ]  
KicOffset-rm: 0.098 arcsec [0.06σ]  
OotOffset-st: 1/2/0/0 [3]  
KicOffset-st: 1/2/0/0 [3]  
DiffImageQuality-fgm: 0.33 [1/3]  
DiffImageOverlap-fno: 0.67 [2/3]

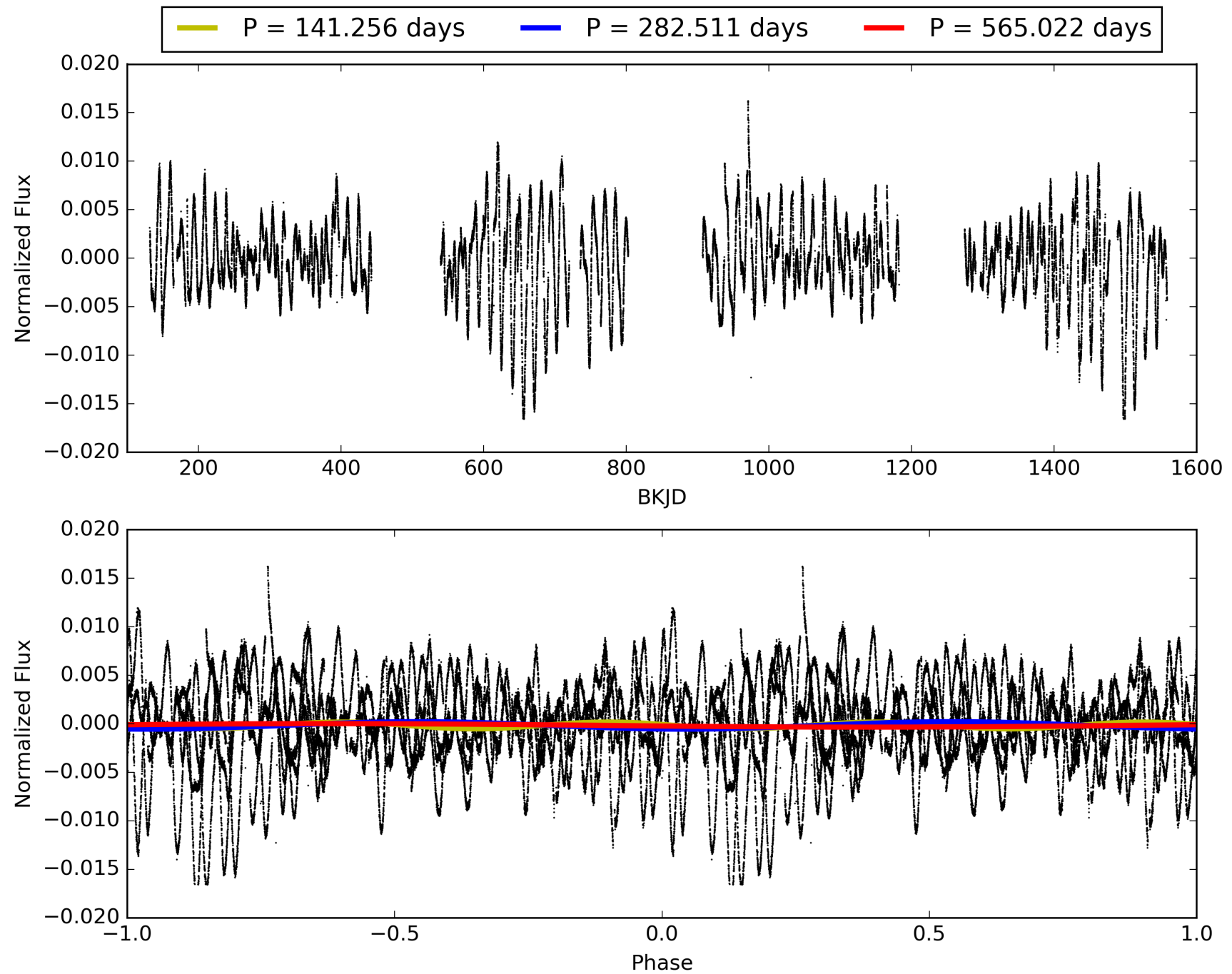
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 12:43:15 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

# TCE 006756202-03, PDC Light Curves

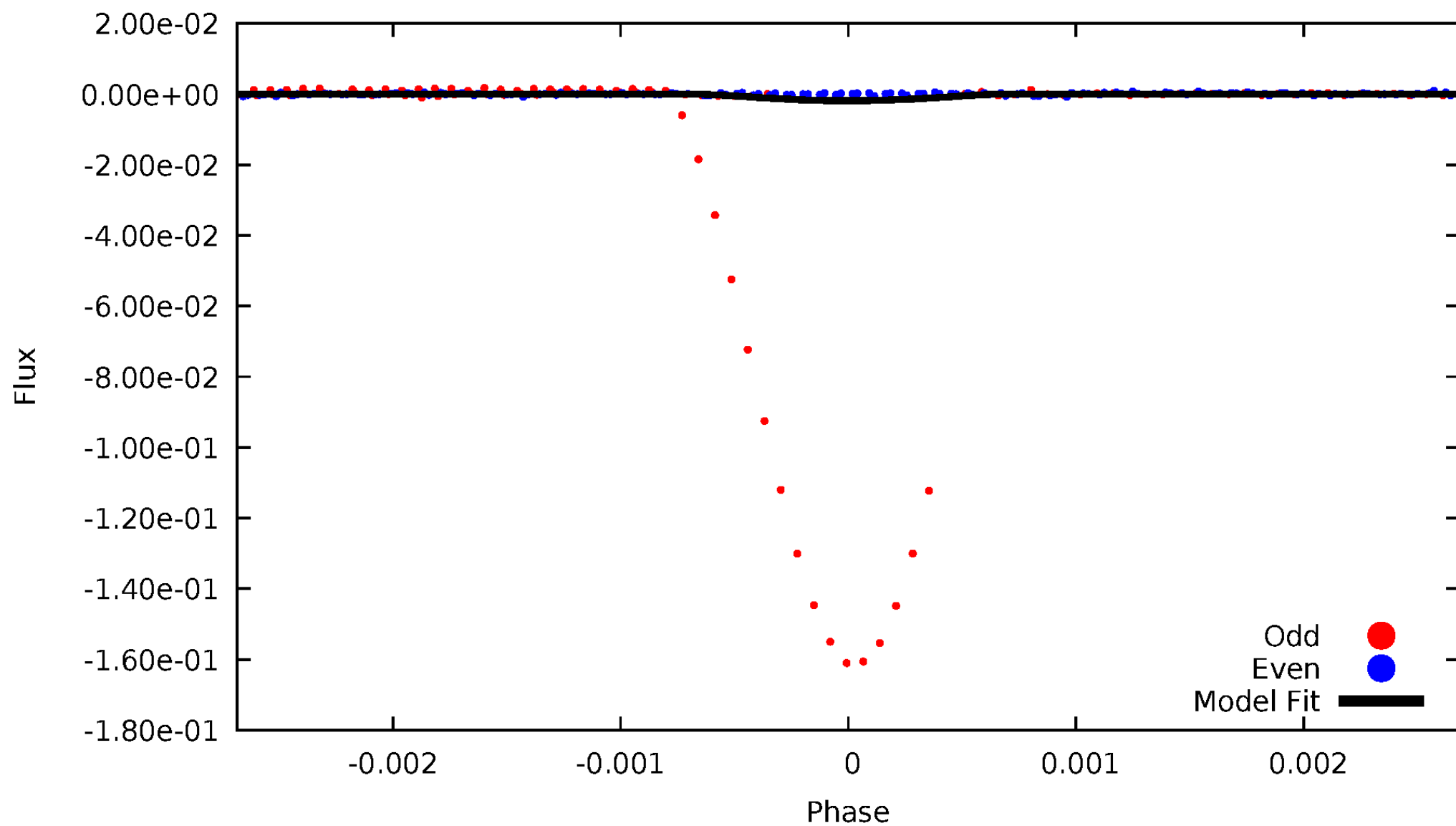


TCE 006756202-03



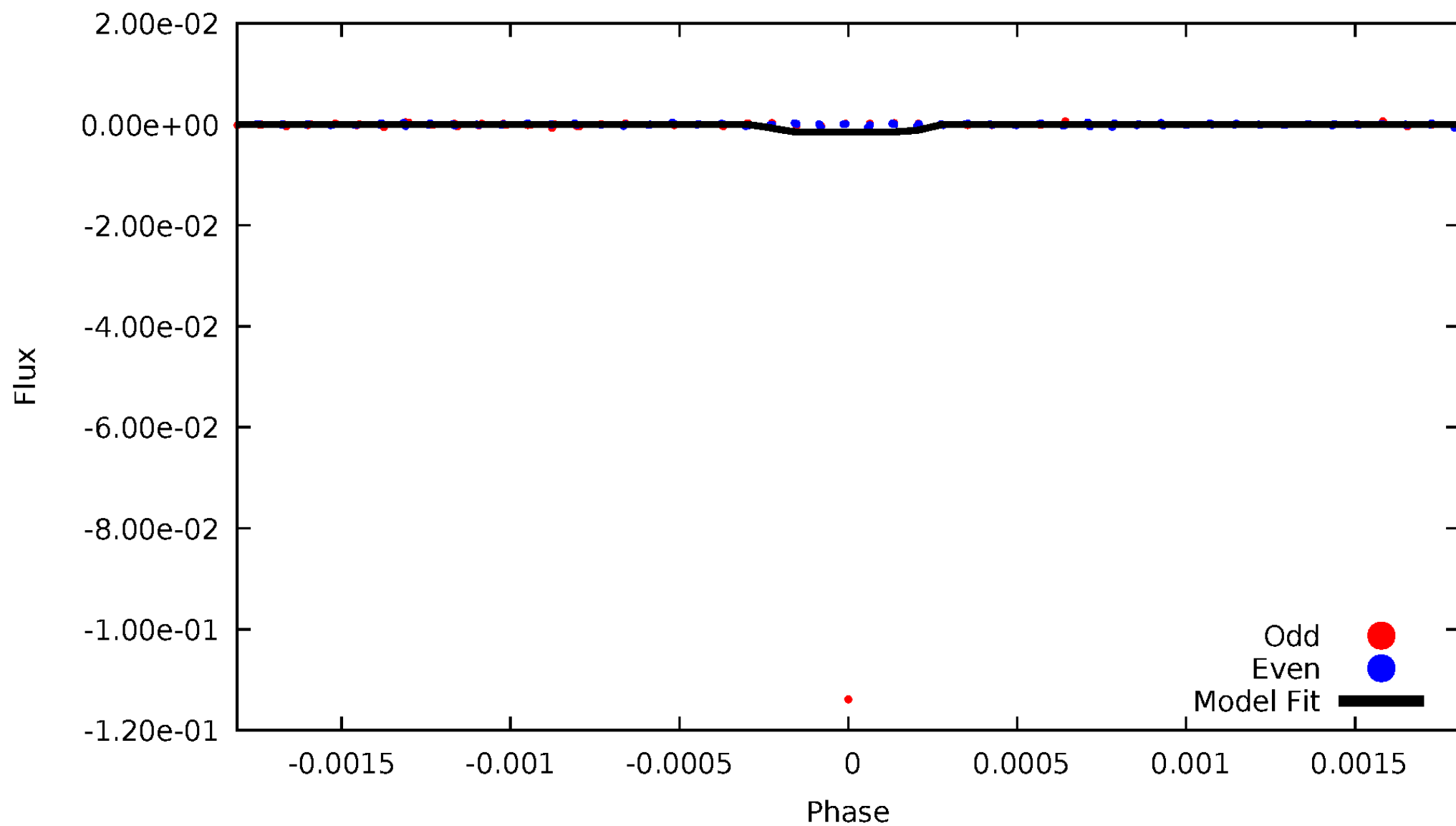
# DV Odd/Even

TCE 006756202-03



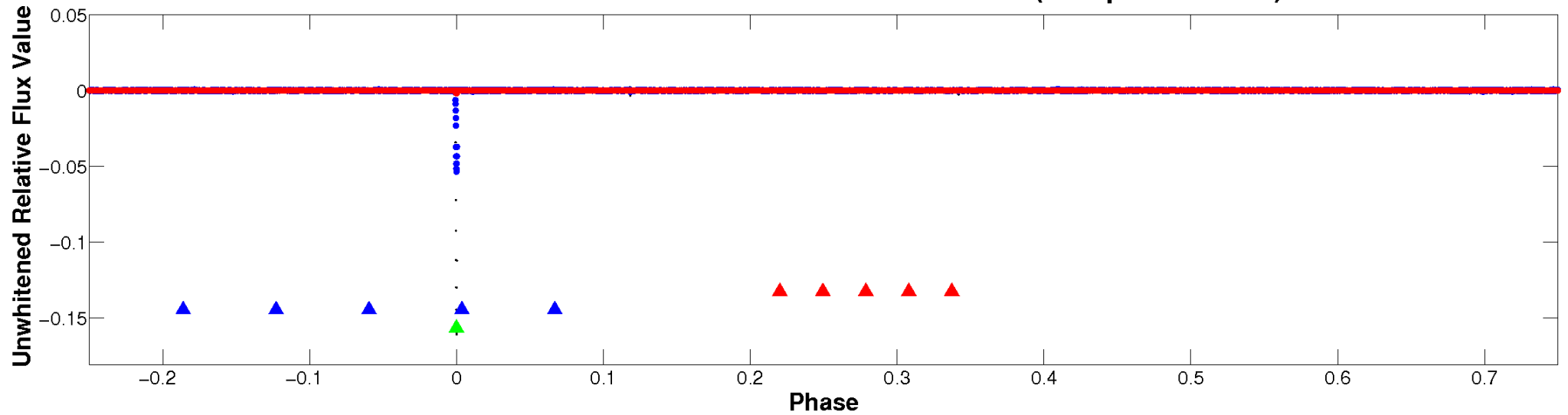
# ALT Odd/Even

TCE 006756202-03

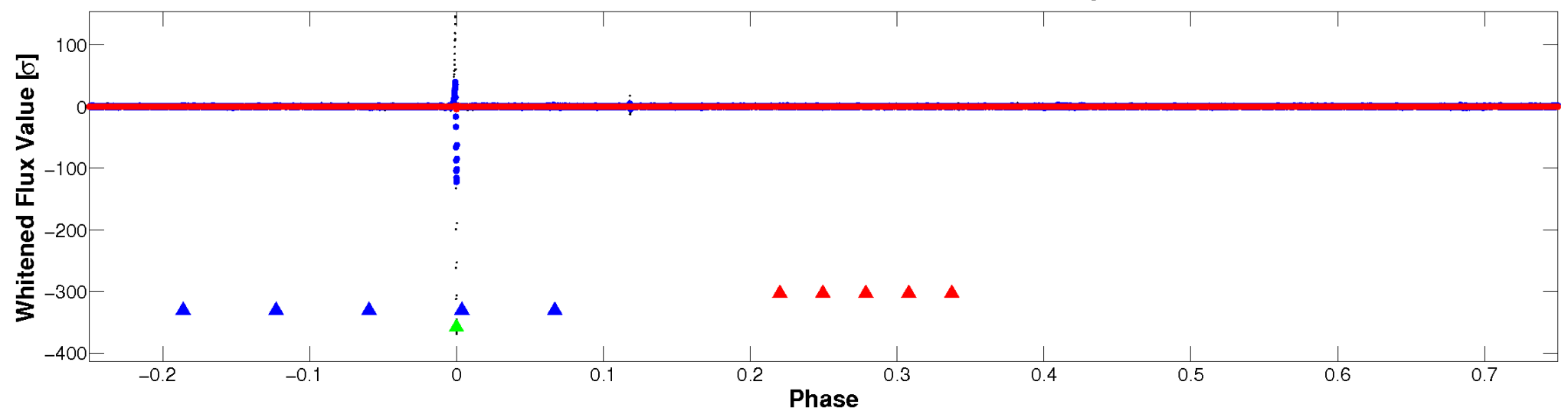


# Non-Whitened Vs. Whitened Light Curve

**Planet 3 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)**

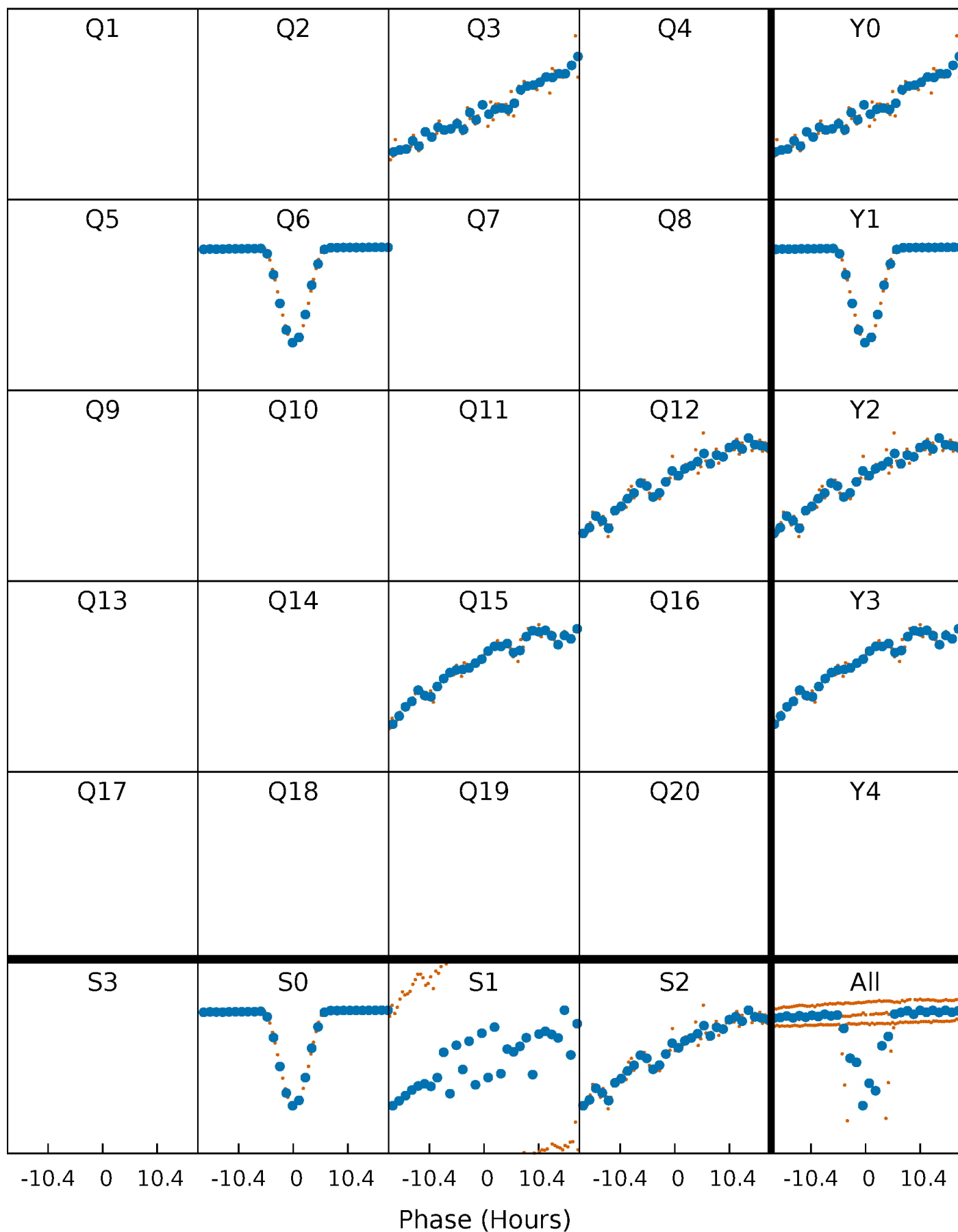


**Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



# PDC Quarter-Phased Transit Curves

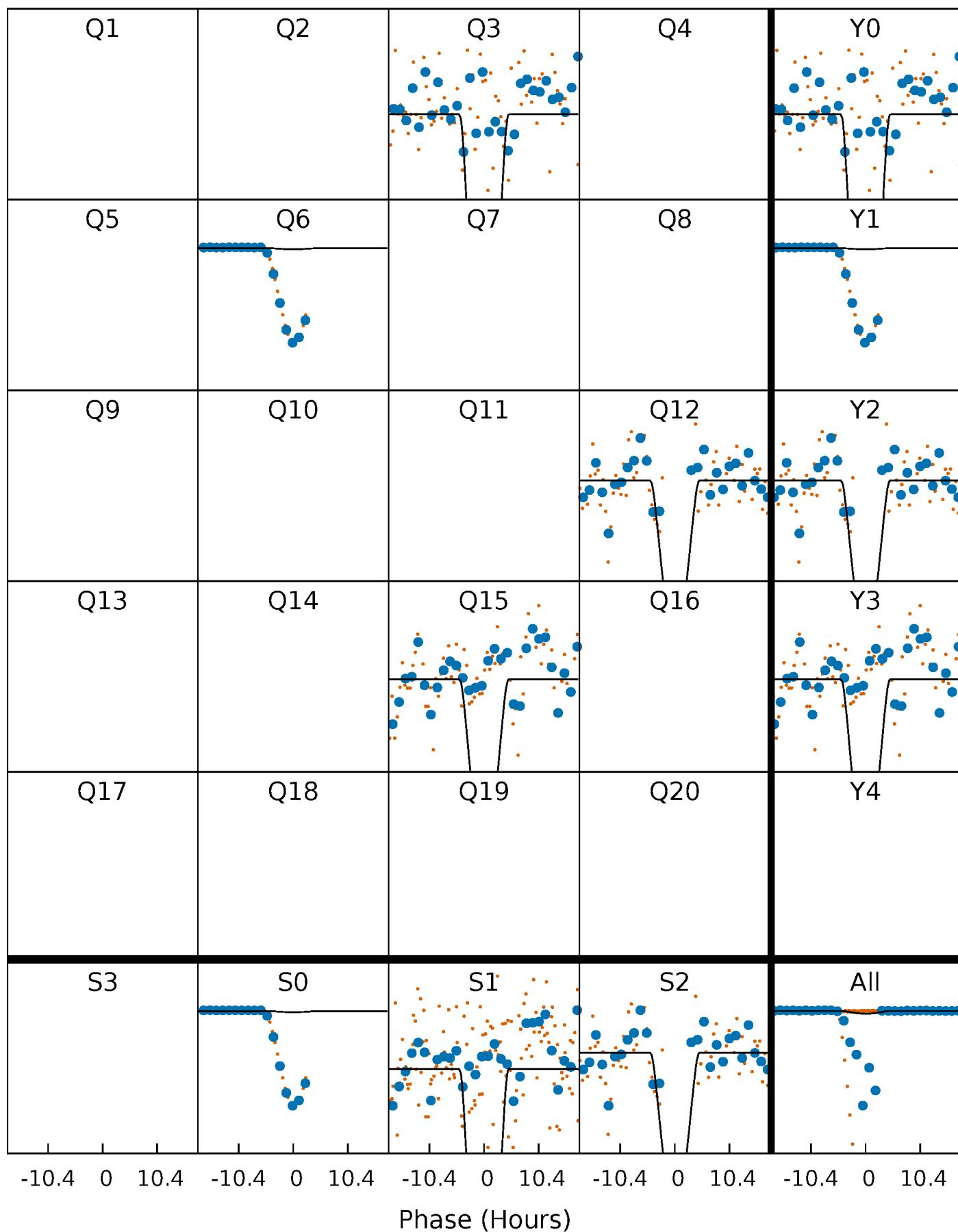
TCE 006756202-03 P=282.511207 Days  $T_0=331.298712$  (BKJD)





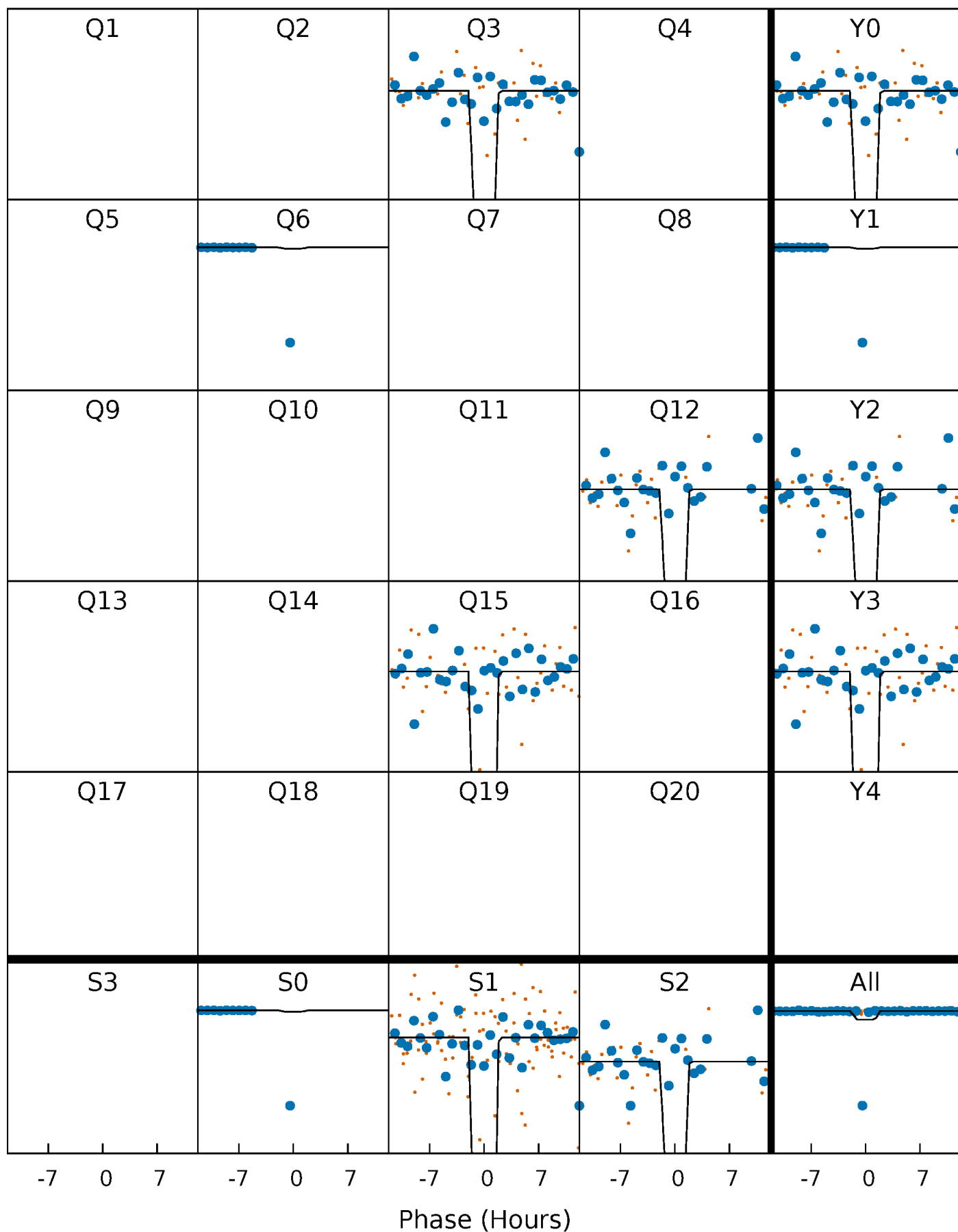
# DV Quarter-Phased Transit Curves

TCE 006756202-03     $P=282.511207$  Days     $T_0=331.298712$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

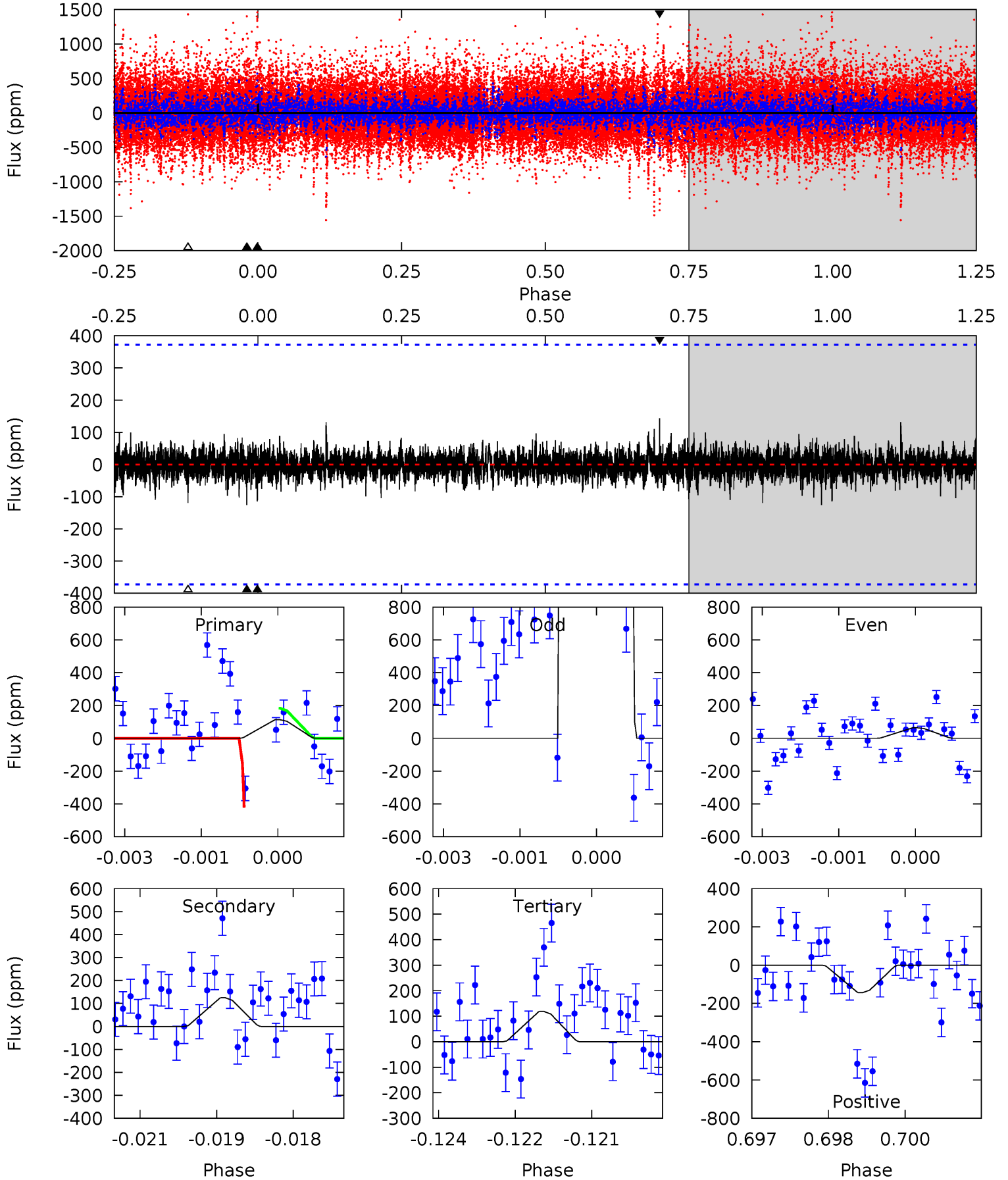
TCE 006756202-03 P=282.412233 Days  $T_0=331.314035$  (BKJD)



# DV Model-Shift Uniqueness Test

006756202-03, P = 282.511207 Days, E = 48.787505 Days

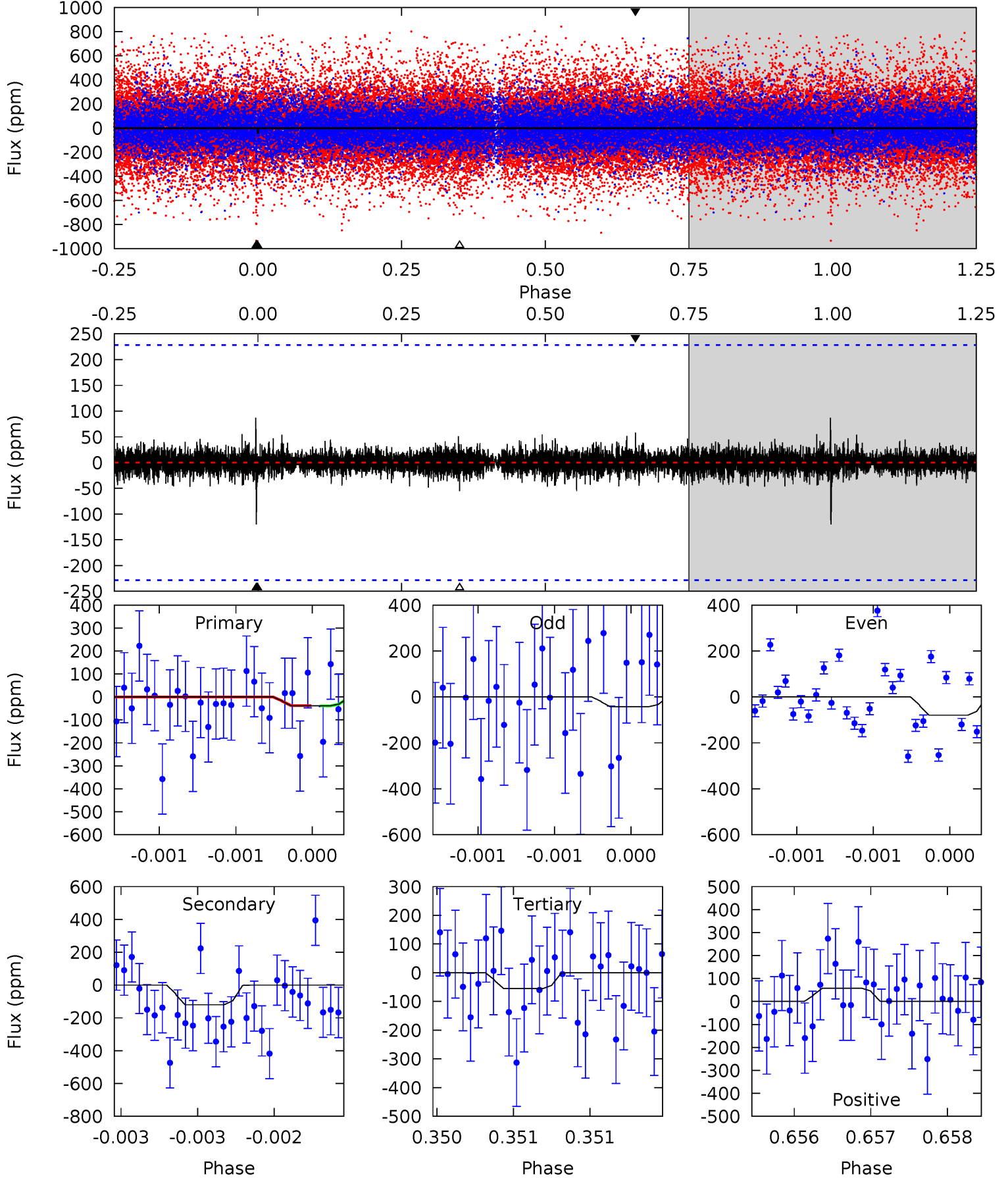
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.65	1.81	1.72	2.08	5.39	3.20	0.35	-0.07	-0.43	0.09	-0.27	1683	181.4	0.53	0



# Alt Model-Shift Uniqueness Test

006756202-03, P = 282.412233 Days, E = 48.901802 Days

Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.94	2.92	1.35	1.41	5.55	3.44	0.31	-0.41	-0.47	1.58	1.51	0.42	0.62	0.42	0



### Stellar Parameters For KIC 006756202

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$5207^{+154}_{-138}$	$4.585^{+0.048}_{-0.072}$	$-0.300^{+0.300}_{-0.300}$	$0.734^{+0.098}_{-0.066}$	$0.756^{+0.091}_{-0.066}$	$2.693^{+0.581}_{-0.686}$
	+3%/-3%	+1%/-2%	+100%/-100%	+13%/-9%	+12%/-9%	+22%/-25%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology  
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

### Secondary Eclipse Parameters for KIC 006756202-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	$A_{\text{obs}}$
DV	$-125 \pm 69$	$97.21^{+105.71}_{-68.67}$	$316^{+12}_{-11}$	$1520^{+395}_{-230}$	$3.595^{+41.318}_{-2.893}$
Alt.	$-120 \pm 41$	$85.73^{+95.71}_{-61.11}$	$316^{+13}_{-12}$	$1568^{+422}_{-218}$	$5.148^{+56.059}_{-4.118}$

$T_{\text{max}}$  = Theoretical Maximum Planetary Temperature

$T_{\text{obs}}$  = Observed Planetary Temperature (Assuming  $A=0.3$ )

$A_{\text{obs}}$  = Observed Albedo (Assuming  $T=0$ )

If a secondary eclipse is present, the system is likely an EB if  $T_{\text{obs}} \gg T_{\text{max}}$  AND  $A_{\text{obs}} \gg 1.0$

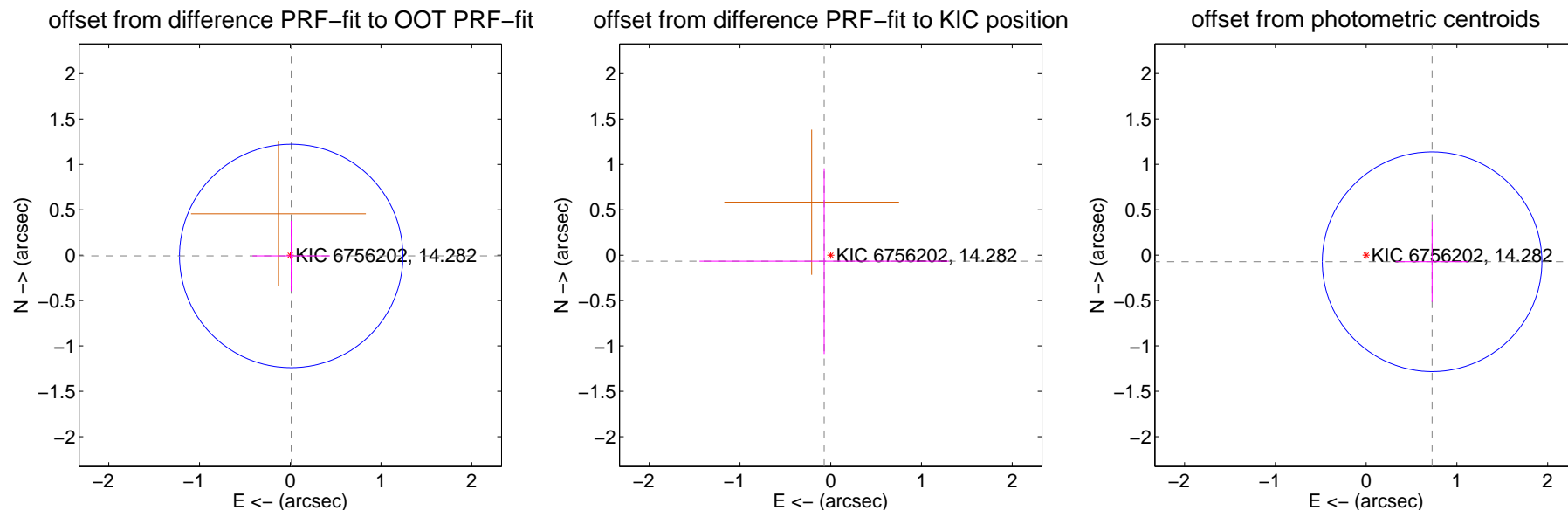
## DV Centroid Data

Supplemental centroid analysis for 006756202-03. Kepler magnitude: 14.28. Transit SNR 12.69

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.014 \pm 0.410$	0.03	$-0.010 \pm 0.426$	$-0.009 \pm 0.387$
PRF-fit source offset from KIC position	$0.098 \pm 1.698$	0.06	$0.072 \pm 1.373$	$-0.067 \pm 1.023$
photometric centroid source offset	$0.73 \pm 0.40$	1.81	$-0.73 \pm 0.40$	$-0.07 \pm 0.44$



Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three- $\sigma$ . Red \*: target star. Blue \*: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

Q1 no difference image



Q1 no OOT image



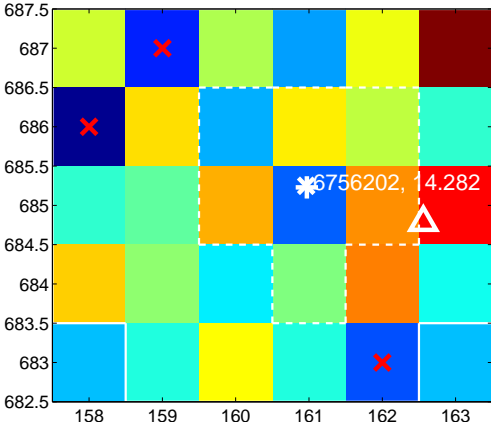
Q2 no difference image



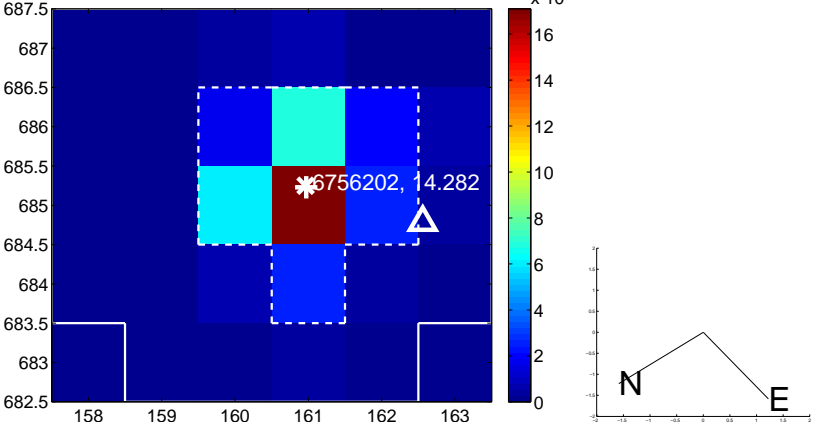
Q2 no OOT image



Q3 difference image. Poor Quality



Q3 OOT image



Q4 no difference image



Q4 no OOT image



white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

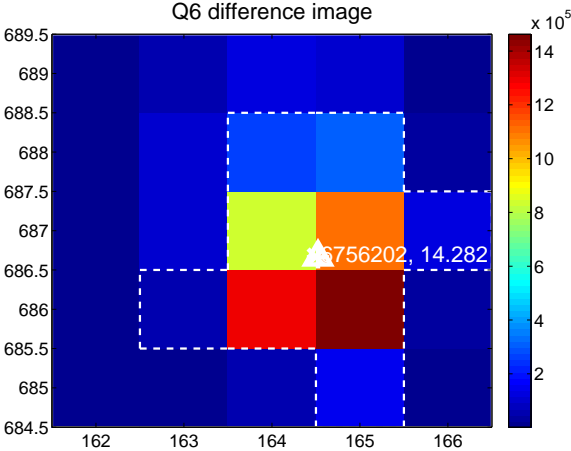
Q5 no difference image



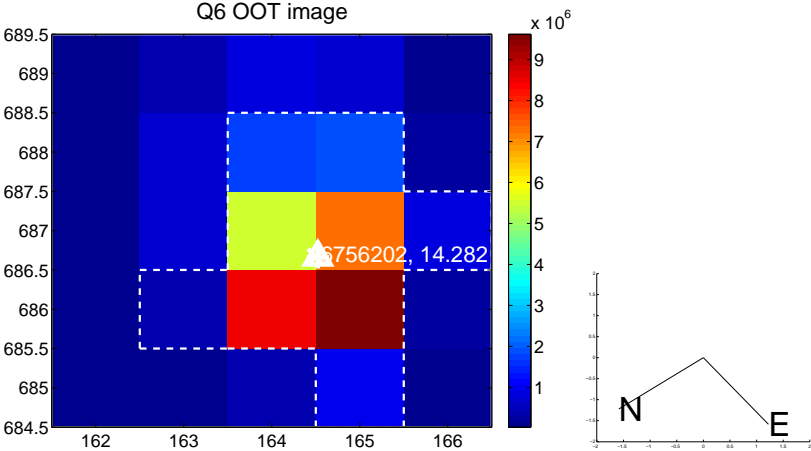
Q5 no OOT image



Q6 difference image



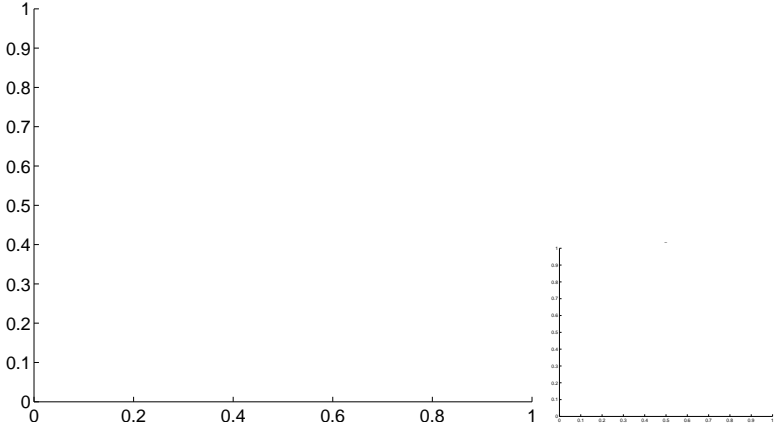
Q6 OOT image



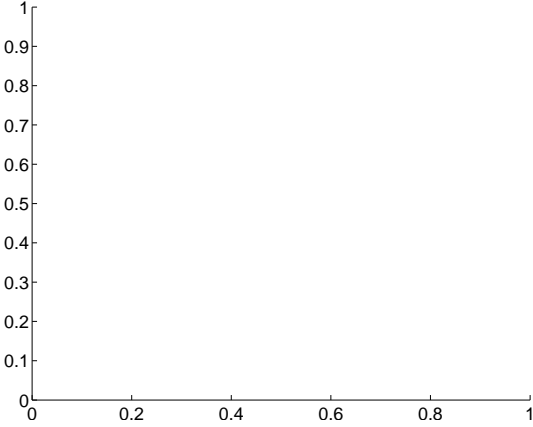
Q7 no difference image



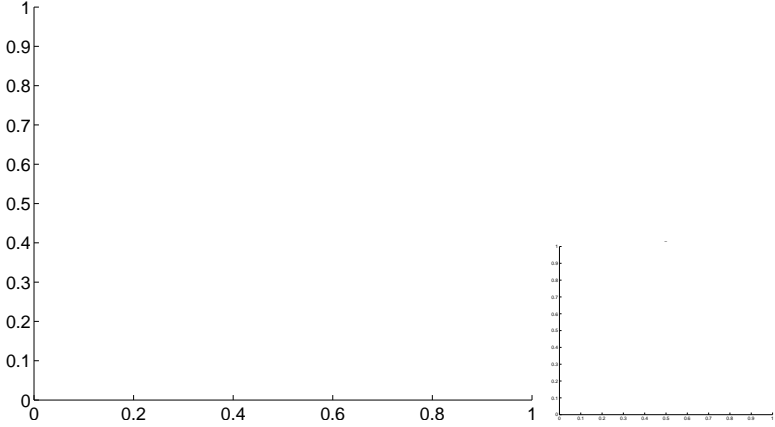
Q7 no OOT image



Q8 no difference image



Q8 no OOT image

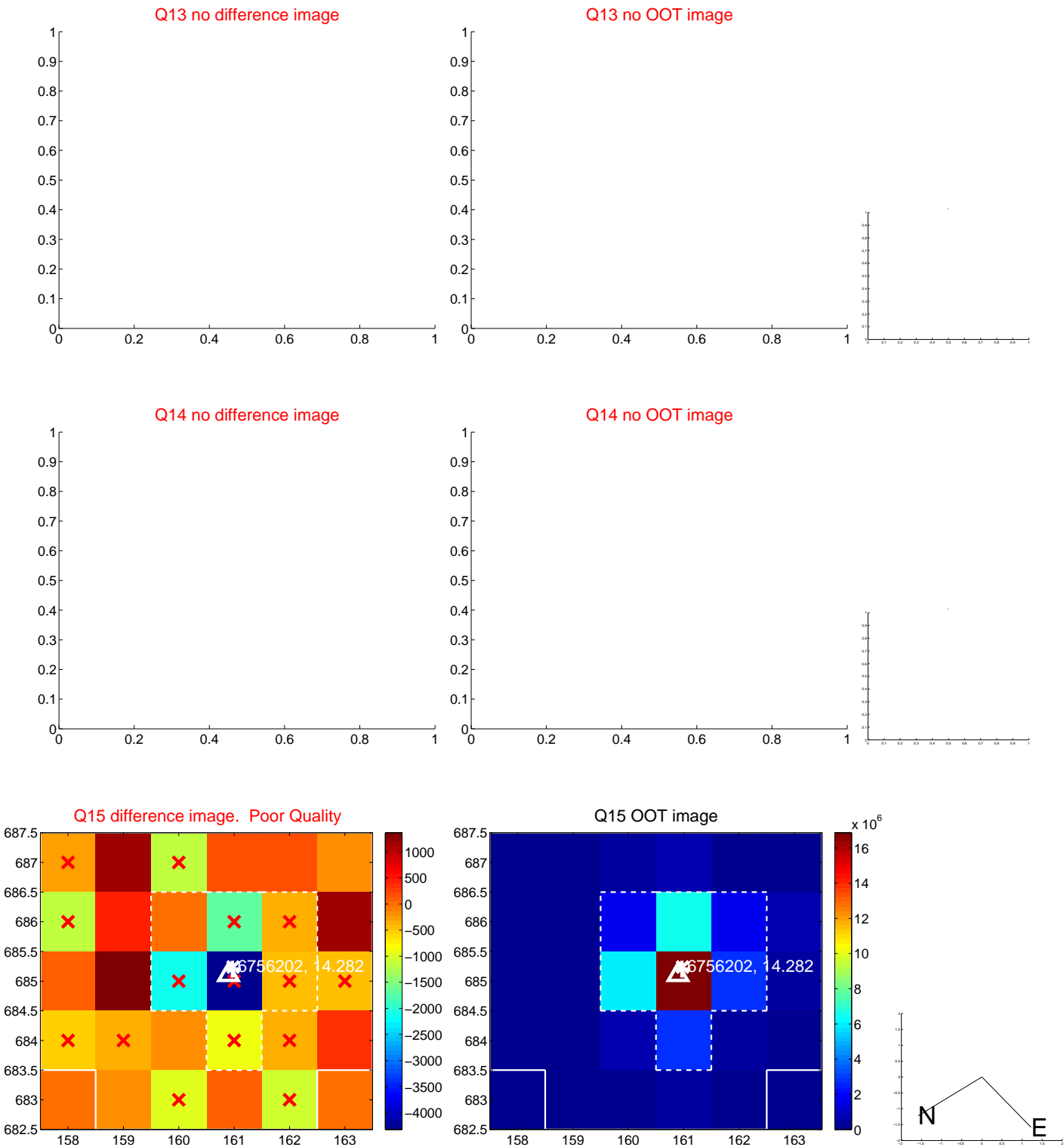




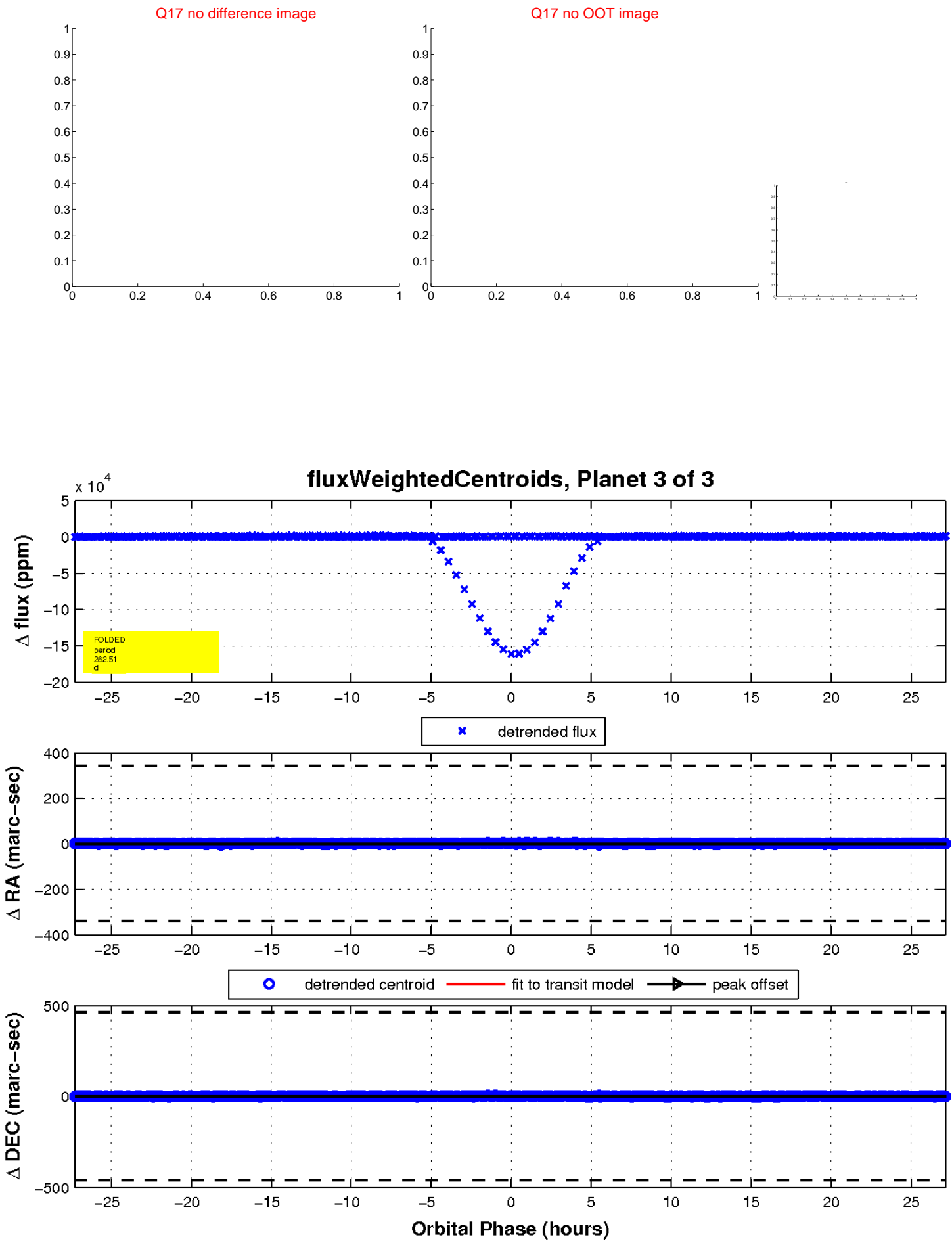
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



# UKIRT Image

Declination

